

# The GENTLEMAN and LADY's PALLADIUM

For the Year of our LORD 1754;

Containing (besides what is *usual*) the Abuse and Use of History;  
an Account of the Origin and Family of *Pride*; on *Drunkenness* and  
*Gaming*; a *Dream*; the *Muses Banquet*; of *Story-telling* and *Satyr*.  
—With the Tradition of LORD SHORELAND's MIRACLE at *Sheepy-  
Island*, in *Kent*, in the 'Reign of Queen Elizabeth, by which the  
Prophecy of his Lordship's Death was there fulfilled.

To which is added,

A complete EPHEMERIS for *Sea and Land*; with all the *Aspects* of the  
*cælestial Bodies*.

For the Benefit of both Sexes, and Use of Schools.

The Sixth Number published.

By the late AUTHOR of the LADIES DIARY.

1. Goddess of Science, *Pallas*! aid the Muse,  
*Windsor* the Taste of *Upnor* will excuse.



3. To shew thy Power and aggrandize thy Name,  
And tell to distant Nations Britain's Fame.

4. If Shipwrights, Seamen, can such Wonders do!  
Bid Pedants, Coxcombs, with their Arts, adieu,  
Remember *Pbaeton*, nor hope to drive  
The Sun's Grand Chariot, and escape alive.

LONDON, Printed for J. FULLER, at the Bible and Dove in  
*Ave-Mary-Lane*. MDCCLIV.

2. In *the* *ROYAL* *NAVY* *at* *Wrought*,  
Stupendous Work! by Land and Water brought.  
\* Or *Senjan* *Tatiba*.

# THOMAS HUNTLEIUS,

AUCTORI Της Ἐφημερίδος τῶν Γυναικῶν.

S. P. D.

QUANDO tu quidem, *Vir optime*, nomen meum inter patronos codicum tuorum anno proximo referre dignatus es; eò factus audacior; compluribus aliis explicationibus te dono, iisque subjunxi tria quatuorve nova problemata, ænigma unum et unam questionem: ex quibus omnibus optima quæque tibi delibanda relinquo. Gratias ago singulares, quod enodationem quæstionis 48 *Palladii*, suppressisti; mihi pergratum erit, si omnes, quotquot sunt accurationis expertes, tenebris occultes, seu potius duramodo vacet, de iis me certiolem faceres, quò tempestive emendatas reddam. Sermone Romano usus sum, ut juniores æquales meos, ad studium istius linguæ nobilissimæ excitarem; sin autem sermonem peregrinum minùs idoneum judicas, quo sive problemata sive resolutiones in publicum proferantur, petendum est consuetudini inter transcribendum tradas *Anglicanæ*. Quod si feceris, magnus ad priora tua erga me studia cumulus accedet. *Vale*. Dabam de *Burfordiâ*, in provinciâ Oxoniensi, pridie Calendas *Aprilis*, Anno post natum Christum 1753.



P R E F A C E



# P R E F A C E.

THE GENTLEMAN and LADY's PALLADIUM was originally designed as a Companion for the *Ladies Diary*, in the room of the other *Diary*, awkwardly projected from that Plan. But its Mention being every where struck out from the *Diary Copy*, 1753, (since the *Imprimatur*) the *Palladium* then became a NOUN SUBSTANTIVE. With which Performance our *Ladies Chronologer*, in *English*, with a *French Almanac*, binds in Connexion, instead of the said *Ladies Diary* any longer; which is now considered as Nothing relating to these our Productions, but as it may be purchased by some Few of its former Friends, to compare the Difference betwixt them.

The *New* and *Full Moons*, in our *Ephemeris*, are carefully computed from Doctor *Halley's* Tables, and reduced to *apparent Time*, of the *ecciptic* Conjunction and Opposition; whereas Dr. *Halley's* Method finds only the *Orbit* Conjunction and Opposition, which are here reduced to the *true*, by the Moon's Argument of Latitude. So that the true Time of *Change* and *Full Moon* is about 14 Minutes sooner, or later than the Time of *Orbit* Conjunction and Opposition, according to Dr. *Halley*.

For Example.—The equal Time of N. Moon 23d Jan. is, by Dr. *Halley*, 9h. 30m. Morn. but by the *Reduction* of the Moon's Place to the *Ecliptic*, it is 6 Min. sooner, or 9h. 24m. from which deducting of 12m. the Equation of Time, the Residue will be 9h. 12m. the apparent Time of the true *New Moon*. N. Moon 22d Feb. is 14m. sooner, by *Reduction*, than by Dr. *Halley*. N. Moon 22d April is 7m. later. Full Moon 6 May is 11m. later. N. Moon 22d May is 14m. later. Full Moon 1 Sept. is 13m. and half sooner; where an Allowance is made for the *Reduction* and *Equation* of Time.

Hence appears the *Fallacy* of the common *Almanacks* and *Ephemerides*, in the Times of the Lunations there published, whose Writers (if they understood how to compute) are paid a Price so very low for their Performances by the Agents for an honourable Society, that it is not worth their While to consult Truth.

The *English Calender* we have corrected according to the late *Style-Act*, which is published as an *Almanac* in the *French Tongue*, in our *LADIES Chronologer*, with an Explanation of the general Terms of the *Almanac*, in a *French and English Vocabulary*, subjoined. All the *lunar Aspects* of the Planets are published in the Interspaces of the Planets Places for the Year against the Day of the Month, with the Hours under the Signs of the particular Aspect, when each happens. This we have done for the Satisfaction of the curious Observer, and not for Ends of judicial Astrology.

The Moon's Places are computed this Year, by a new Theory to compare with Observations.

N. B. Our Friends and late Correspondents of the *Ladies Diary* are desired to direct their Letters for the late Author of the *Ladies Diary*, [franked, or Post Paid.] to be left at Mr *Hallifax's*, Clock-maker, at the Dial in Fleet-street, London.

THE  
GENTLEMAN and LADY'S  
PALLADIUM,

For the Year 1754.

*Ænigma Latinum.* à Dom. THOMA HUNTLEIO.

SUM Nive candidior, Satrapaque superbior alto,  
Ater ubi Remex sulcat mibi Fluminis Undas :  
In se meum eunto Funus, modò credere doctis  
Ænigdum placeat filiis ; quo Nomine dicor ?

*Questio.* Ab Eodem.

*Qui sit, nostrates moribus Gallicis tantoperè delectentur ?*

*New Ænigmas* (for the Cultivation of the *Invention* and *Judgment*) to be answered in the next Year's PALLADIUM.

A PASTORAL OR ÆNIGMATIC DIALOGUE, I.  
Between *Amanda* and *Lucinda*, lamenting the hard Fate  
of a LADY, not long ago the *Darling* of the FAIR-  
SEX.

*Lucinda.* TELL me, *Amanda*, what 'tis racks thy Breast,  
Has some strange antic *Fury* dispossess'd  
Thee of thy Reason ? Can't *Lucinda* find  
A Balm to cure thy much distemper'd Mind ?  
Thou that hast born the sharpest Shocks of Fate,  
And found Content even in a homely State ;  
Thy Heart not now susceptible of Love,  
What more remains that can the Passions move ?

*Amanda.* Ah ! Nymph the *Lady* ! Which we both admire,  
That led the *Dance*, and strung the tuneful Lyre !  
That gave Instruction both to *Gay* and *Grave*,  
Is now depress'd, and made an abject *Slave*.  
Hast thou not heard of *Strepson's* glorious Name,  
*Strepson* the chiefest Favourite of Fame,  
*Strepson* the *Brave*, the *Generous* and the *Young*,  
The noble Theme of every *Shepherd's* Song ?

*Lucinda.* I've heard some *Rumours*, but my humble Mind,  
To Flocks and to domestic Cares confin'd,  
Permits not me to mark Affairs of State,  
But leave them to perplex the *Wise* and *Great*.  
Yet from thy Mouth how gladly would I hear  
Those moving *Ills*, that touch thy Heart so near.

*Amanda.* The Noble *Strepson* bears an ample Share,  
In every Danger, every anxious Care

That tortures *greedy* Minds; yet ne'er did know  
The *Sweets* which from *unbounded* Affluence flow;  
Proscrib'd and absent from his Place of Birth,  
Scarce finds a safe *Assyle* throughout the Earth.  
Mean while the *Satyr Faunus* does possess  
His Rights, and drives his Flocks to great Distress:  
The Sheep of *Strepbon* now becomes his Prey,  
Reluctant, their new *Pastor's* Voice obey.

*Lucinda.* But what's the Motive of *Lucina's* Care?  
That Nymph who shone so *Bright*, so *Great* and *Fair*!  
That once was *gay* and *pleasant* as the *Light*,  
But now o'ershadowed with a gloomy Night.

*Amanda.* Alas! that Grief by which she is oppress'd,  
Hard to conceal, unsafe to be express'd,  
Shall be entrusted to thy *faithful Breast*.  
*Beauteous* she was, adorn'd with native Charms,  
And, *Pallas-like*, skill'd both in Arts and Arms!  
Such was her State, when from a *Wood* remote,  
Some luckless Star, the *Satyr Faunus* brought.  
Th'*unwary* Nymph admits him as a Friend,  
Unthoughtful of the Dangers that impend;  
Till, by the fatal *Guest*, disarm'd and thrown,  
She's wounded by the *Weapons* once her own!  
Then takes he Seizure of her *Flocks* and *Droves*,  
Her flow'ry Pastures, and her shady Groves.  
And now subjected to the *Tyrant's* Pow'r,  
She sees his *Dogs* her tender *Sheep* devour.  
Nor can she their *Calamity* redress,  
Nor dares she, openly, her Griefs express.  
But Streams, that *silent* pass, are most *profound*,  
And Griefs restrain'd and mute, the deepest wound.  
Compell'd she drags the *Satyr's* pond'rous Chains,  
But, in her Breast, the generous *Strepbon* reigns.

ENIGMATIC DIALOGUE II. By *Upnorenfis*.

*Wildair.* CAN you *Ardelia*, freely part  
With what would fix me to your Heart?

*Ardelia.* Speak out, or else how should I know,  
Whether I'll spare it you or no.

*Wildair.* Look here, behold what I request,  
A Thing of which we're both possess'd;  
What shall exhaust not much your Treasure,  
What you may give and take at Pleasure.

*Ardelia.* I know I can—but dare not do it,  
Vain all Attempts—no more pursue it—  
Thousands are ruin'd every Day  
By only lending it—away.

*Wildair.* Though some are Sufferers—some are bless'd,  
'Tis of all *Lotteries* the best:  
For if good Fortune chance to rise,  
You may, for *Nothing*, gain a *Prize*.

*Ardelia.*

- Ardelia.* Do you that *Substance* Nothing call  
Which can the greatest Prince enthrall?  
Can either Life or Death bestow,  
Insure Felicity or Woe?
- Wildair.* I dare—for no Man, now alive,  
Asserts 'tis more than five to five;  
An even Wager! give Consent,  
Prudence will every Ill prevent.
- Ardelia.* Shall I, for Life, at Hazard play?  
No *Wildair*,—if you will you may—  
But I whom Reason's Dictates rule  
Can see the wise Man and the Fool.
- Wildair.* If such a *Boon* you can deny,  
Adieu *Ardelia*! (*Ard*—) *Wildair* fly!  
Return and take what 'tis you ask,  
Surely to love is no hard Task.

Kent, May 25,  
1753.

### III. ÆNIGMA. By *Fidelia*.

1. NEVER were Sisters two belov'd,  
Or more, esteem'd than we;  
No, not the *Gunning's*, lately mov'd  
To Orbs of Dignity:
2. For Princes at our Levee wait,  
With all the nobler Race,  
And the Great Officers of State  
Solicit our Embrace.
3. Nor are we to the Peer alone,  
But to the Peasant Friends,  
And from the Cottage to the Throne  
Our Influence extends.
4. Not One, who this Ænigma reads,  
Is ign'rant of our Use;  
Yet we must own for some *Misdeeds*,  
We may deserve *Abuse*.
5. Our Title we like *Quality*,  
From former Kings derive,  
However, in Reality,  
Our Donor's now alive.
6. Have you not heard that sometime since  
(Who knows not the Design)  
A jocular and hungry Prince,  
Once knighted a *Surlin*.
7. Perhaps from such an Incident,  
Or Appetite as keen,  
My Grandeur rolls on by Descent,  
From *England's* King and Queen.
8. For to high Life we claim a Right,  
Nor let this cause your Wonder;  
For like some Pairs both Day and Night,  
We often are asunder.

### IV. ÆNIGMA.



## IV. ÆNIGMA. By Miss Anne Hulfe.

1. UPON the Surface of the Globe,  
Between a Wood and rising Ground,  
I in a mean or costly Robe,  
Each Day may readily be found;
2. The Vale is pleasant to behold,  
Where I my Situation take,  
There Diamonds, Rubies, Pearls and Gold,  
In various Forms Copartments make.
3. There all which Nature can produce,  
Or human Artists can invent;  
If fit, — tho' trifling be their Use,  
Without Regret to me are sent.
4. But what are these, when justly weighed  
Against a far superior Bliss,  
They *Flora's* Beauty only aid,  
But I from *Flora* steal a Kiss.
5. In me the reigning Toast delights,  
For I'm the Darling of the Fair;  
The withered Matron too invites,  
And makes me her peculiar Care.
6. Yet tho' I boast of Happiness,  
Descending from a Noble Race,  
Spite of the Grandeur I profess,  
I often fall into Disgrace.
7. Supplanted by some rival Art,  
Of the same Stock, but more polite,  
I am commanded to depart,  
Forc'd to deliver up my Right.
8. Yet this *Usurper*, in my Stead,  
Who seems to reign with equal Sway,  
If *Flora* takes it in her Head,  
Is but the *Sovereign* for a Day.

## V. ÆNIGMA. By Mr. John Ramsay.

TO Fish, Worms, Horse, Earth, I owe my Production,  
But to the *Mechanics* I owe my Construction.  
My Body is slender and conical made,  
And my Head's of the Fashion—to make a Parade.  
My Cap sometimes silver, and Rings I do wear,  
And I'm dres'd in a *Ribband* to please the fine Fair!  
My Vertex is green, as 'tis otherwise blue,  
Or 'tis red or 'tis black and of various Hue.  
My Skin is quite rough and appears full of Eyes,  
More than *Argus* 'ere had, to enhance your Surprise!  
But to tell you my Trade you will set me at Nought,  
Since my whole Occupation's to mend those in Fault;  
And good *Christian* Discipline sometimes I give,  
The Slave and the Sinner my Virtue receive.  
Now Ladies if you my true Name will discover,  
I'll commence your true Friend and warm your cold Lover.

## VI. ÆNIGMA.

## VI. ÆNIGMA. By Eboracensis.

1. One of my great *Grand-Mother's* was  
For preaching much renown'd;  
As some have been for lesser Cause,  
With godly *Mitres* crown'd!
2. No *Methodist*, or *Quaker* I,  
Though I like both can prate,  
My *Eloquence*, if Fame don't lie,  
Preserv'd a tott'ring State.
3. Yet you will find me spoken of  
In Terms of *Ridicule*,  
Am made a Jest, or turn'd to Scoff,  
Like the *pedantic* Fool.
4. *Landen* and *Turner* wise appear,  
Compar'd with *weaker* me,  
As Qualities of all Kinds are,  
Known but by their Degree.
5. The *Ass* for Burden, *Horse* for Speed,  
*Yahoos* for Mockery made,  
While you observe each nobler Steed,\*  
Less Virtue will degrade.
6. No Fault I have that I can tell,  
Unless I be too loud,  
No Man that ever mark'd me well,  
Can think me vain or proud.
7. For though a lofty Look I bear,  
(Which some may call aspiring!)  
When I the poorest *Hut* draw near,  
You'll find me worth admiring.
8. There you'll behold I'm *modest* too,  
And very rarely venture,  
Without a very humble *Bow*,  
At any Door to enter.

## ÆNIGMA VII. By Upnorenfis.

1. YE Females who in me delight,  
Discover, if you can, my Name,  
Descended from an ancient *Knight*,  
Lately your *Fav'rite* I became.
2. Whether 'tis for my Birth, Success,  
Or Loyalty, I'm honoured most,  
'Tis plain more Titles I possess  
Than *Spain's* proud Monarch 'ere could boast.
3. My *Trade* and *Rental* are so large,  
Were I Particulars to tell,  
The annual Profit and Discharge,  
Would more than to a *Volume* swell.
4. Though I not covetous of Pelf,  
But with a generous Spirit blest,

\* Of the *Hyymn* ns.

- First pay my Servants, clear my Self,  
Then give the *Public* all the Rest.
5. Thousands by me have Fortunes rais'd,  
Thousands by me have been undone,  
I'm lov'd and hated, curs'd and prais'd,  
But thrive amain and value none.
6. Whether I do more good than Harm,  
Has been a Matter of Debate;  
Though I the coolest Heart can warm,  
And make the silent Woman prate.
7. As to Religion I'm a *Quaker*,  
And act just as the Spirit moves me;  
Busy enough! yet no Pains-Taker,  
Though some of all Persuasions love me.
8. No longer to distract your Head,  
But the *grand Secret* to impart,  
I *Salamander* like, am bred  
By Fire,—and kept alive by Art.

ENIGMA. VIII. By Mr. *Christopher Mason*, of *East-bourn, Suffex*.

I AM still in Expectation, but never in Fruition.

\*\* *Whoever sends Answers before Candlemas next will have a Chance*  
*Lot, for five, four, and three Palladiums, of equal Value with ten,*  
*eight, and six Ladies Chronologers.*

PRIZE-ÆNIGMA. By *χρόνον μοιον πύβλιν*.

WITHIN an ample *Pile* I bask in State,  
Vie with *Bashaw*, or *Grander Potentate*;  
If my *SUPERIORS* do but thwart my Will,  
I soon with Terror their *Republic* fill;  
I sit enthron'd, my mimic *Pride* behold!  
As, to my self, I tell my *Masters Gold*.  
I turn about me as the *Humour* bites,  
And live upon the *Public's annual Rights*.  
As *Mountebanks*, the *Country Marts* attend,  
And to the gaping *Crowd* their *Pacquets* vend,  
Unmindful of *Effects* they may produce,  
Regardless of their *Nature*, or their *Use*,  
So my *Doctrines*, true or false, disperse,  
Whether in paltry *Prose*, or meaner *Verse*,  
Talk *Nonsense*, play the *Fool*, and prate and puff!  
And if I get then off, 'tis well enough.  
To the *Good Workman* I am most uncivil,  
For he'll be pay'd,—and *Payment* is the *Devil*.  
Give me the *Men*, who will for *Two-pence* ply,  
Tho' all in *Rags*,—if at my *Feet* they lie,  
And pay me *Adoration*,—I'm *Content*—  
By such I gain,—Be what will the *Event*.  
To serve myself, you'll hear me oft pretend,  
“ I'm *your's*, *Another's*, or the *Widow's Friend*.”

I call for Gratitude where that I owe,  
 And vast Advantages reward but low.  
 Proof-sense, I alter by my Critic Head,  
 And fix an *Odium* where was Nothing said;  
 By Arguments fallacious "find the Thief,"  
 And fill my Masters with a false Belief:  
 While to the Ladies I commence a Foe,  
 And *bind* them of what I cannot do.  
 Whether I'm Man or Monkey, Jew or Turk,  
 They best can tell for whom *I've done their Work.*

*The ROYAL ORACLE, or QUERIST.*

I. *Quere* 46. By Mr. J. P.

WHY do the unhappy, yet reasonable Part of the female Sex prostitute their Minds and Health, as Companions to several Men, indifferent and dangerous, and neglect their Interest and Safety, in seeking one Friend? And why should they act more indiscreet than a burnt Child that dreads the Fire?

II. *Quere* 47. By Miss J. P.

WHY should Gentlemen of Reason and Science persuade or tempt young Ladies to act against their true Happiness (finally to disturb their own) and then condemn them for so doing?

III. *Quere* 48. By *Honorius*.

WHY should Censure be so grateful to, and so much practised by, some of the prettiest of the Fair Sex?

IV. *Quere* 49. By *Prudentia*.

WHY should Gentlemen boast of Favours from the Ladies they never received, which is the only Way to lose their Favour?

V. *Quere* 50. By *Constantia*.

WHETHER if Men would practise the Complacencies and Endearments in the Marriage State, to their Wives, they practised before that State to them, as *Mistresses*, it would not be happier for themselves?

VI. *Quere* 51. By *Honestus*.

WHY should the Scriptures be ridiculed or degraded by *Profligates*, when they contain only *Lessons* and *Examples* for the general Good of Mankind?

VII. *Quere* 52. By *Britanicus*.

WHICH Way, and how, may the national Honour, Strength, and Riches be encreased?

VIII. *Quere* 53. By *Publicus*.

HOW should Power be dealt with in the Hands of the best Governments?



# PALLADIUM, 1754. N. S. II

## IX. Quere 54. By Mr. George Brown, of Oxford.

WHENCE came the Custom of wearing Stays, by the Ladies in England, unknown to many foreign Nations? And whether they do Good or Hurt to the Sex?

*\*\*\* Whoever sends Answers to the following before Candlemas next has a Chance by Lot, to win Six Palladiums.*

## PRIZE-QUERE. By Abdiel.

HOW came SIN in Heaven?

NEW QUESTIONS, (for the Cultivation of the *Invention, Reason and Judgment*) to be answered in next Year's PALLADIUM.

### I. QUESTION 76. By *Honestus*.

A Gentleman has 1000*l.* due by Legacy, at the Decease of a healthful Person of 46 Years of Age, who would be glad to receive the Payment thereof by an equivalent Value in an *Annuity*, during the Life of that Person; *how much* is the *Annuity* he ought to receive, allowing for the Interest of Money 4*l. per Cent.* supposing the *Annuitant* to be the longest Liver?

### II. QUESTION 77. By Mr. William Honnor.

IN a small *Isle* a stately Oak does grow,  
Whose *Height* and *solid Feet* I fain would know;  
Which from these *Data\** may be made appear,  
In your most fam'd *Palladium* for next Year.

*\* The Diameter at the first Station appeared under an Angle of 1 Deg. and the Altitude 13 Deg. 6 Min. at the second Station the Diameter appeared under an Angle of 1 Deg. 24 Min. 44 Sec. The Stations were 100 Feet asunder, and if two right Lines were drawn between the Tree and first Station, and between the first and second Station, they will include an Angle of 44 Deg. N. B. 5 Feet must be added to the Tree's Altitude found for the Height of the Eye from the Ground, being level with that whereon the Tree grew.*

### III. QUESTION 78. By Mr. Joseph Hilditch.

ON the 20th of *January* 1753, at Night the Altitude of *Pollux*, † was observed to be 60 Deg. 21 Min. and that of the *Lion's Heart*, 38 Deg. 50 Min. required the Latitude of the Place\*, and Time of the Night, where and when those Observations were made?

† *East of the Meridian.*

\* *Under the Meridian of London.*

### IV. QUESTION 79. By Mr. Charles Mason, of Sapper-ton, Gloucestershire.

A LADY's Shade was found to be just half her Height, when Sol was due *East*, on the very same Morning that he rose at 20 deg. Azimuth from the East Northerly; and it was found that the *Sum* of the

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Square Inches of the Lady's Height, and of her Shade, aforesaid, were 81 $\frac{1}{2}$ ; The Latitude of the Place, and Day of the Month, *where and when* this happened, are required? and also the Value of that Lady's Fortune in the *greatest* Conical Frustum of Gold possible, the slant Side whereof is the *thirteenth* of her Height, and the Breadth of the Lesser Base exactly two Inches: A Cubic Inch of Gold being valued at 40*l.*?

### V. QUESTION 80. By Philotheoros.

A Balance-Master descended from the Top of a Tower, to the Level of the Bottom, down a strait Rope, making an Angle of 30 deg. with the Plane of the Horizon, in a certain Time, and in one Second of Time less, he descended again from the Top of the same Tower to an Eminence one Quarter of the Tower's Height from the Level of its Bottom; the Rope making the same Angle with the Plane of the Horizon as before: Required, the Times of Descent, and Height of the Tower?

### VI. QUESTION 81. By Anagramensis, Holy in Heart, Ebor.

IN what Latitude, on the 10th of April, 1754, is the Forenoon longer than the Afternoon by 23 min. 24 sec. and longer than the next preceding Forenoon by 25 min. 33 sec.?

### VII. QUESTION. 82. By Chesterfieldensis.

GIVEN two Lines bisecting the Acute Angles of a right angled triangular Field, drawn from those Angles to the Sides opposite, 50 and 40 Poles, required the Fences, and Acres contained?

### VIII. QUESTION 83. By the same Gentleman.

GIVEN  $x^2 - 1000z = z^2$ , Quere  $x$  and  $z$ , in Integers, with two general Theorems for finding their Values, and to be so conditioned, that the said Theorems may neither have the Square of the Quantity assumed, nor the Square of the given Quantity contained in them; as also their Investigation, and all their Values, in whole Numbers, deduced therefrom?

### IX. QUESTION 83. By Mr. Hanvill, London.

THE Sum of the Bases (=AB) the Sum of the Perpendiculars (=BC) and the Sum of the Areas (=a Square, abcd) of two similar right angled Triangles, being given, thence to construct the Triangles?

### QUESTIO X. et 84. à Dom. Huntleio.

LATRONES duo A et B, societate initâ, mand iter diversum, prædâ venaturi, instituerunt: A primò, currum nactus, viatores pecuniâ quadam spoliabit, nec multò post, nobilem quendam virum radice superiores summe quadrata + £6; B autem in duos mercatores C et D incidit, quorum ille £64 et hic £44 secum habuit; de priore abstulit duplo majorem summam, quàm de posteriori, hinc tamen reliquit duplo majorem quàm illi; perâ autem præda latronis A erat  $\frac{3}{7}$  prædæ latrunculi B; sed convenientes ad spoliò partiendâ, inter se litigabant; ex quo uterque, quantum poterat, corripuit; sed andem lite compositâ, consentiebat A deponere  $\frac{4}{5}$  de numeris & se

*raptim collectis, et B dimidium suorum; ac dein summam ex æquo bipar-*  
*ti; cujus dimidio reliquis utriusque addito æqualibiter præda dispersita*  
*ut jam scire aueo quantum pecuniæ diripiebant ambo?*

XI. QUESTION 85. By Mr. L. Nicholson.

REQUIRED the Area and Construction of the Curve, expressed by  
 the Equation  $2axy - ay^2 = x^3$ ?

XII. QUESTION 86. By Mr. Charles Smith, of Rugby.

WHAT are the six Geometrical Proportionals continued,  $abcdef =$   
 $12230590464$ , and  $ab = 9$ ?

*\*\* Whoever sends Answers before Candlemas next has a Chance to*  
*win 12 Palladiums.*

PRIZE QUESTION. By Londonensis.

THE Profits of 1500 £. vested in the public Stocks, are enjoyed by  
 an Old Woman of 60, after whose Death the Capital is to be equally  
 divided among her surviving Daughters, at present 5 in Number, their  
 Ages differing about a Twelve Month from each other, and the young-  
 est is 35. The present Worth of this Daughter's Expectation is requi-  
 red? Supposing the Current Interest of Money to be  $3\frac{1}{2}$  per Cent. and  
 the Stock to be at Par, at the Time of the Mother's Death?

NEW PARADOXES to be answered in the next  
 Year's Palladium.

PARADOX I. By Mr. A. Brooke.

TWO Kings never died,—never will,—nor are they still living!

PARADOX II. By Miss J. P. of Rochester.

I saw the Moon rise and set three Times in the same Evening!

ANSWERS to all the Ænigmas in last Year's  
 PALLADIUM.

I. 51. A POET.

II. 52. A Lady's UNDER-  
 PETTICOAT.

III. 53. A PATRIOT, or MAN  
 of HONOUR.

IV. 54. A Lady's NEEDLE.

V. 55. A Lady's MASK.

VI. 56. TRUTH.

VII. 57. AN AURICULA.

VIII. 58. A THORN in the  
 FOOT.

IX. 59. A RIVER.

X. 60. The TONGUE.

XI. 61. A PEN.

XII. 62. A TURN STILE.

I. Lat. A Ship.

II. Lat. The Earth.

III. Lat. A Guinea.

Mr. Thomas Huntley solved the first Latin Ænigma in Latin Verse, and  
 the 56th in English Verse, which we have not room to insert.

The

The PRIZE-ÆNIGMA, in the last Year's *Palladium*, answered by *Serenus*.

THE Quack, who so loud barangues the wild Crowd,  
And boasts of his Art, and his Skill;  
Whose Medicine destroys, and blasts all our Joys,  
Is the Methodist's Poisonous Pill!

Answered by Mr. Christopher Mason.

Enthusiasts cant, ex Spiritu divino,  
But Hypocrisy shews that 'tis all for the Rhino.

All the Ænigmas answered in the last Year's *Palladium*, by Mr. John Ramsay, of Morpeth.

LET good MEN OF HONOUR do that which is Right.  
To the TRUTH of Religion stick close with their Might,  
The Maid with her NEEDLE shou'd ne'er go astray,  
But keep thro' the TURNPIKE along the right Way;  
With a MASK on her Face, and a FLOWER in her Breast,  
Where the THAMES runs along, with a TONGUE well express'd,  
Strong Drams, Quack and METHODIST, let her despise!  
And keep off the THORN-BUSH, I do her advise;  
Let VIRTUOUS ARTS, and the PEN be her Guide  
Then each will admire what her PETTICOATS hide.

On the Printing Press set up at Rome, about the Year 1446,  
by Uldaricus Gallus, wherein is answered the  
Ænigma, by Mr. John Ramsay.

THE watchful Goose once sav'd the Roman Walls,  
And brought Destruction on the haughty Gauls;  
Our Gaul revenges by his wond'rous Skill,  
This antient Grudge upon the GOOSE's QUILL;  
For what the Pen requires a Year to say,  
His Printing Art delivers in a Day.

All the Ænigmas in last Year's *Palladium*, answered  
by Mr. Ralph Hulse.

*Tot Homines, Tot Sententiæ!*

1. WHILEST busy Mortals strive in vain,  
The Summum Bonum to obtain,

Each takes a different Way:

Some fondly proud of WHITFIELD's Task,  
(Whose dark Designs lie under MASK)

From TRUTH's pure CURRENT stray.

Prize.

5.

6, 9.



2. The *Miser* heaps up GOLDEN ORE, *French.*  
 With Rapture eyes his *Shining Store*,  
 His *God*, and only Prize :  
 By *Prodigal* his Bags enjoy'd,  
 And ah ! Himself, like THORN, destroy'd, 8.  
 In EARTH forgotten lies. 2 *Lat.*
3. The *Merchant*, with his SHIP of Claim, 1 *Lat.*  
 Who at Success directs his Aim,  
 Attempts the briny Deep ;  
 But one fell Blast in fatal Hour,  
 At once destroys each hopeful Flower, 7.  
 And interrupts his Sleep.
4. Gay Sparks from Play to Tavern fly,  
 And place their sole Felicity  
 In NEEDLESS Things that change ; 4.  
 From *Glass* to PETTY-COAT they rove, 2.  
 And by soft SPEECHES point out Love, 10.  
 Still doom'd by Fate to range.
5. APOLLO's SONS but vainly wife 1.  
 Would by their PENS to Honour rise, 11.  
 Like MEN OF HONOUR tend ; 3.  
 Whose TURN-STYLE Wit and Passions shew, 12.  
 Of *Wise* and *Good* there are but *Few*,  
 And *Few* that e'er will mend.

R. H.

ANSWERS to the ORACLE-QUERIES in last Year's  
 PALLADIUM.

I. QUERE 35, answered by *Adastrea*.

AMERICA, according to *Grotius*, cited by the late Lord *Bolingbroke*, in his Reflexions upon Exile, was originally peopled from *Scandinavia* : Who therein observes (p. 246 of his 2d. Volume) that, in Process of three or four Thousand Years, the same Race of Men have pass'd their Conquests and Habitations round the Globe.

II. QUERE 36, answered by *Socius*.

THE Old are permitted to marry, for Example to those who are capable of making better *Use* of their Passions.

III. QUERE 37, answered by *Prudentia*.

MEN are generally esteemed for the Expectations we have from them ; so that by respecting others we love ourselves.

The greatest Gift that Providence can bestow is *Health* and *Understanding*. The Gifts of blind Fortune are treacherous and transitory.

Mr. *Pope* observes of the happy Man possessed of a Competency :

*His Life is healthful and his Conscience clear,  
 Because he wants a Thousand Pounds a Year.*

With

With Affluence associate Diseases, and the Inquietudes attending the wretcheder Part of Mankind. Pomp and Magnificence are *Plagues* that tread upon the Heels of *Ambition* and disturb *Tranquillity*: The profuse Squanderer enjoying the least Part of his Wealth, seldom applied to charitable Uses.

#### IV. QUERE 38, answered by *Lucinda*.

*SHADOWS* are the *Privations* of Light intercepted by Bodies; so that the enlightened Parts of those Bodies appear distinct from the shaded Parts. And the Motion of *Shadows* depends upon the Motion of Bodies intercepting the Light (*as the Dancing of some Shadows depends on the quivering of the Leaves of Trees*) causing thereby a Motion of Darkness. The Motion of *Shadows* otherwise depends on the Motion of the luminous Body; or on that and the Motion of the intercepting Body.

#### V. QUERE 39, answered by a *Haberdasher*.

WHETHER *Shades* wore by the *Ladies*, are copied from the Trappings of Horses or not, it is certain they serve, like them, to keep off the *Flies*, and attract the *Butterflies* and *Beaus*.

#### VI. QUERE 40, answered by Lady *Betty Biggot*.

*MAHOMATISM* propagated in *England*, would equally answer the same Ends with *Judaism* and *Methodism*; that is, to get Money.

#### VII. QUERE 41, answer'd by Mr. *Geo. Brown*, of *Oxford*.

Mr. *LANDEN*'s Godfather was *Upnorenfis*, who first adopted him his Son, *Maximus Problematicus Waltoniensis*; because he lives at *Waking* near *Peterborough*, and dealt largely in *Cyphers* and *Problematics*. He rejected *Maximus Problematicus*, it seems, for *Waltoniensis*, only, out of great Modesty. His reproaching Mr. *Emerson*, Mr. *Heath*, &c. is from his *Byas* more than Sagacity.

#### VIII. QUERE 42, answered by *Honorius*.

WHEN Man is *Wife-bit* he must find a female Friend where he can, and obey the Laws of God, and of *Nature* as he can. If he has not Money and Interest enough to divorce the *Prostitute* by Act of Parliament, he must do it by an Act of Conscience.

#### IX. QUERE 43, answered by *Amicus*.

*Unnatural Appetites* and *Desires* cultivated in the Youth of both Sexes, are the Causes assigned for the unnatural Practices mentioned, which are only prevented by an early Cultivation of Morals, and the Choice of uncorrupted Schools and Companions.

*Nature*, since *Eve*, is pregnant with the Devil.

#### X. QUERE 44, answered by *Chathamensis*.

THE LADIES honourably acquit their Friend; but acquit not a prying Inspector into their Sexes' Modesty, through a Peep Hole. O Doctor Hole-Peeper!

PRIZE-QUERE, answered by *Upnorenfis*.

THOUGHT springs from the *Divine Essence* within us, and is an Agitation or Operation of the *Soul*, or *Thinking Substance*, susceptible both of *Pleasure* and *Pain*; without which, neither that Substance nor its Attribute, *Thought*, could exist: And every *Act of Thinking* is a certain Effort and Operation of Soul, by which we perceive Things existing, as we do, under such particular Modes or Attributes of Being. And hence the *Essential Part* of our Being, from whence Cogitation arises, seems to be independent of what we now perceive as Matter in Motion. For, tho' Matter may be necessarily connected with Soul, or Thinking Substance, in our present Being; yet that Materiality, with its Modes of Motion, being dissolved, or removed from the Substance purely cogitative, the *Consciousness* of our Being will then more immediately exist in, and depend on, the CREATOR, as the ORIGINAL SUPPORT AND GIVER OF ALL BEING.

What is Thought?

*The Hermit's Solace in his Cell,*

*"The Fire that warms the Poet's Brain;*

*"The Lover's Heaven or his Hell,*

*"The Madman's Sport, the Lover's Pain.*

ANSWERS to the QUESTIONS in last Year's PALLADIUM.

I. QUESTION 58, answered by Mr. F. Holden.

LET P represent the South Pole, E the Pole of the *elliptic*, and F the Place of the *Star Fomabant*, at the Time of its first appearing in the given *Parallel*; then will  $PF = 65^{\circ}. 50'. 50''$ .  $EF = 60^{\circ}$ . Lat. of *Fomabant*,  $68^{\circ}. 55'. 6''$ . by Dr. *Halley's* Tables; and  $PE = 23^{\circ}. 29'$ . whence the  $\angle PEF$  is found, by Spherics,  $= 77^{\circ}. 41'. 28''$ . which is *Fomabant's* Difference of Longitude from the first Point of *Capricorn*, at the required Time. But, by the above-mentioned Tables, the Long. of *Fomabant*, at the Beginning of the Year 1720, was  $\approx 29^{\circ}. 54'$ . or  $59^{\circ}. 54'$ . from *Capricorn*, which, taken from the above, leaves  $17^{\circ}. 47'. 28''$ . for the Quantity the Star's Long. must encrease, before it can appear in the given *Parallel*: This divided by  $50''$ . the annual Increase of Long. gives 1281 Years nearly; which added to 1720, gives the required Time, at the end of the Year 3000.

But, if  $33'. 45''$ . be allowed for the *Star's* horizontal Refraction, the Side PF must be taken  $= 65^{\circ}. 17'. 5''$ . which will give the  $\angle PEF = 76^{\circ}. 16'. 38''$ . with which proceeding as before, we shall get something above 1179, to be added to 1720, which will bring us to the former Part of the Year 2899, for the Time required. Q. E. F.



C

Mr.

## Mr. T. COWPER's, the Proposer's Solution.

IT is evident, that this *Star* will appear in the given Latitude, when its Declination becomes equal to the Complement of that Latitude; but the horizontal *Refraction*, elevating the *Star*  $33'. 45''$ . causes its first Appearance a great many Years sooner.—Therefore, if to the Complement of Latitude  $24^\circ. 9'. 10''$ . we add  $33'. 45''$ . the Sum will be  $24^\circ. 42'. 55''$ . the *Star's* Declin. when it will first appear. To find the Longitude of the *Star* answering to that Declination. In the annexed Triangle,  $S\psi F = 23^\circ. 29'$ . the Obliquity of the Ecliptic;  $\psi F = 68^\circ. 55'. 6''$ . the Co-Lat. and  $FS = 68^\circ. 17'. 5'$ . the Complement of the *Star's* Declination; whence  $\angle S\psi F = 76^\circ. 16'. 38'$ . the Distance of *Fomabant's* Longitude from the first Point of  $\psi$ , and its Longitude  $\propto 16^\circ. 16'. 38'$ . Now by Dr. Halley's Tables, the Longitude of this *Star*, in 1720, was  $\approx 29^\circ. 54'$ ; therefore it will be advanced in Longitude  $16^\circ. 22'. 38'$ . the Precession of the Equinox being  $50''$ . annually, it will be, as  $50'' : 1720 :: 16^\circ. 22'. 38' : 1179$  Years, which added to 1720, the Sum 2899 will be the Year in which *Fomabant*, by Refraction, will first appear, at *Torneo* in *Lapland*, confirming the Truth of Mr. Holden's Solution. Q. E. F.

Mr. John Wigglesworth solved it. The present Latitude of *Fomabant* being mistaken for  $30^\circ. 59'$ . this Solution was judged impossible; because it was rightly observed by the Remarker, the *Star* could never appear when its Declination South exceeded the Co-Latitude  $24^\circ. 9'. 10'$ . North.

## II. QUESTION 59, answered by Mr. Fr. Holden.

PUT  $a = 7,6928$  Minutes, As  $20' : 1 :: a : \frac{a}{20}$  Post, A makes in

the Time  $a$ ; and consequently B,  $\frac{a}{25}$ , and C,  $\frac{a}{30}$ ; so that A, B,

and C, working together make  $\frac{a}{20} + \frac{a}{25} + \frac{a}{30}$ , Post of Paper in

the Time  $a$ ; therefore 1 Min.  $\frac{a}{20} + \frac{a}{25} + \frac{a}{30} =$  Post of Paper

by D, in  $a$  Time; whence 1 Min.  $\frac{a}{20} + \frac{a}{25} + \frac{a}{30}$  Post :  $a :: 1$  Time Post

$$1, - a \times \frac{1}{20} + \frac{1}{25} + \frac{1}{30} = \frac{300a}{300 - 37a} = 150, 187, \&c. \text{ Min.}$$

minutes, D takes, by himself, to make the Post of Paper required.



*Resolutio, à Dom. Thoma Huntleio.*

Substituatur  $a$  pro min. 20,  $b$  pro 25, &  $c$  pro 30, et  $s$  pro mom. 7,6928, fitque  $x$  tempus quo D opifex Papyri scapum marte suo elaborabit; tum has nanciscimur proportionem, nempe

$$\left. \begin{array}{l} a \\ b \\ c \\ x \end{array} \right\} : 1 :: s \left\{ \begin{array}{l} \frac{s}{a} \text{ Ergo } \frac{s}{a} + \frac{s}{b} + \frac{s}{c} + \frac{s}{x} = 1, \text{ Papyri scapum ;} \\ \frac{s}{b} \text{ per } a, b, c, \text{ et } x, \text{ quò quantitates fractæ evanescent.} \\ \frac{s}{c} \\ \frac{s}{x} \end{array} \right.$$

$$bcx + acx + abx + abc = abcx; \text{ unde } x = \frac{abc}{abc - abx - acx - bcx} = 150 \text{ mom. ferè, seu 2 hor. \& 30 m.}$$

*Ejusdem Resolutio Arithmetica.*

$$\text{Ut } \left\{ \begin{array}{l} 20 \\ 25 \\ 30 \end{array} \right. \left\{ \begin{array}{l} 1 :: 7,6928 \end{array} \right. \left\{ \begin{array}{l} ,38464 \text{ partem Scapi ab Aspacio } 7,6928 \text{ confect.} \\ ,30771 \text{ partem à B confectam.} \\ ,25642 \text{ partem à C confectam.} \end{array} \right. \text{mom.}$$

$$\begin{array}{r} 1.00000 \\ ,94877 \end{array} \quad ,94877 \text{ summa 3 partium, quâ ab 1 deducta, restabit portio à D conficienda } = ,05123;$$

Denique 0,5123 : 7,6928 :: 1 : 150 min. ferè, five 2 h. 30 m. sicuti supra.

Mr. John Wigglesworth solved it in the same Manner, as the former Part of Mr. Huntley's Solution. Mr. Jo. Hilditch, Mr. T. Corwper, Mr. Phil. Williams, Mr. Ja. Robinson, Mr. Alex. Rowe, Mr. Cha. Smith, Mr. Hen. Watson, and several others solved it.

III. QUESTION 60, answered by Mr. James Robinson.

LET  $120 = b$ ,  $\frac{1}{12} = c$ ,  $\frac{1}{20} = d$ ,  $\frac{1}{4} = e$ ,  $\frac{3}{8} = f$ ,  $3000 = g$ , and  $x = \text{N}^{\circ}$  of Cabbages, and  $3x = \text{N}^{\circ}$  of Brocoli Plants, then, per Question,  $4x - 4fx - 4xe - dx - 3cx + g = \frac{3x}{2}$ , reduced  $x = \frac{g}{4f + 4e + 3c + d - \frac{3}{2}} = 10,000$ , the Cabbages; whence 30,000, the Brocoli Plants. W. W. R.

*SOLUTIO à Dom. Huntleio.*

VOCENTUR Brocoli  $12x$ , (si voce tum barbarâ uti licet) critque numerus brassicarum  $4x$ , et  $\frac{1}{12}$  Brocolorum.  $120 = x - 120$ ;

$$\frac{1}{20} \text{ brassicarum} + 120 = \frac{4x}{20} + 120 = \frac{x}{5} + 120; \frac{1}{4} \text{ totius summæ}$$

$$= \frac{16x}{4} \text{ five } 4x; \text{ denique } \frac{3}{8} \text{ summæ totalis} = \frac{16x \times 3}{8}, \text{ vel } 6x;$$

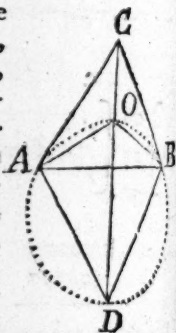
jam summa quatuor novissimarum quantitatum redit ad  $11x + \frac{x}{5}$ ,

seu potius  $11,2x$ , quæ si de plantariis utriusque generis subducatur, restabit  $4,8x$ , et addendo reliquiis 3000, hanc æquationem obtineamus  $4,8x + 3000 = 6x$ , ubi valet  $12x = 30,000$ . plantas apud nostrates *Bracoli* vocatas, et  $4x = 10,000$  *brassarum*. Q. E. I.

The same was answered by Mr. *Edward Gillyat*, Mr. *Phil. Williams*, Mr. *Cha. Smith*, and several others, whose Names may be seen in the Catalogue of Contributors in our *Ladies Chronologer*.

#### IV. QUESTION 61, answered by the Proposer, Mr. Joseph Orchard.

*Construction.* Make  $\triangle ABC$ , whose Sides are equal to the given Numbers, viz.  $AB = 36$ ,  $AC = 34$ , and  $BC = 32$ ; on one Side, as  $AB$ , make an *equilateral Triangle*, with its circumscribing Circle. Draw the right Line  $DC$ , cutting its Periphery in  $O$ , and join  $AO$ ,  $BO$ , with right Lines; then will  $AO$ ,  $BO$ , and  $CO$  represent their *three Ages*, having the same Relation to the Sides of the Triangle they are contiguous to, as  $x$ ,  $y$ , and  $z$ , has, respectively, to the given Numbers, in the Equation; as may be easily proved.



*Method of Solution.* In the  $\triangle ABC$ , all the Sides are given from whence the Angles are found; then in the  $\triangle DBC$  the Sides  $BD$ ,  $BC$ , and  $\angle CBD$  are known, whence  $DC$  and  $\angle BDC$  are found; also, in the  $\triangle BOD$ , the  $\angle$ 's at  $O$ , and  $D$ , and Side  $DB$  are known; as may be easily de-

monstrated. Whence the three Ages of the Ladies are nearly, 21, 8, yrs

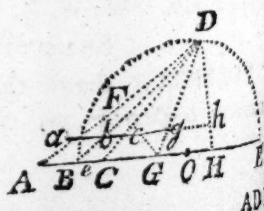
19, 6, and 17, 2, required.

Mr. *F. Holden*, by squaring the three given Equations, (making their Squares respectively  $= a^2$ ,  $b^2$ ,  $c^2$ .) and subtracting the second from the first, gets  $x+y+z \times y-z = a^2 - b^2$ ; and taking the third from the second,  $x+y+z \times x-y = b^2 - c^2$ ; whence it follows, that

$$\frac{a^2 - b^2}{y - z} = \frac{b^2 - c^2}{x - y} (= x + y + z) \text{ from whence he suggests this}$$

*Construction.*

In the right Line  $AE$ , take  $AB = b^2 - c^2$ , and  $BC = a^2 - b^2$ : make  $BC : Be :: a + b : a$ , and  $BC : BE :: a - b : a$ , on  $Ee$  describe a Semicircle whose Centre let be  $O$ , and thro'  $A$  draw  $AD$ , making the  $\angle EAD = 30^\circ$  and cutting the Semicircle in  $D$ ; bisect



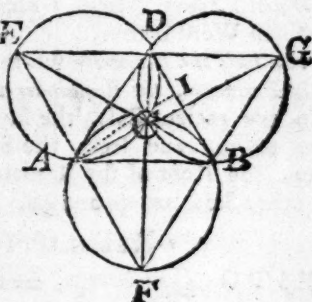
AD by the Perpendicular FG, meeting AE in G, draw DB, DE, DG, and in DB set off  $Db = a$ , and draw  $bg$  cutting DA in  $a$ ,  $Db$  in  $c$ , and DG in  $g$ ; so shall  $ag = x$ ,  $bg = y$ , and  $cg = z$ , the three Ages.

This Gentleman next pursues the *Demonstration*; and then the *Calculation* to a great Exactness; finding the three Ages, *viz.*  $x = 21$ ,  $y = 19,6522$ , &c.  $y = 19,6524714$ , and  $z = 17,2723881$ . Q. E. I.

Mr. John Wigglesworth, by a curious algebraic Solution, confirms the Truth of the same Numbers.

### Mr. James Hartley's Solution.

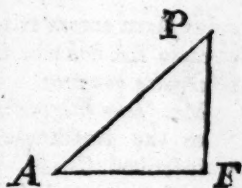
*Construction.* Let the given Numbers 36, 34, 32, be made the three Sides of a Triangle, *viz.*  $AB = 36$ ,  $BD = 34$ ,  $AD = 32$ . On each of those Sides, form an equilateral Triangle; then join the opposite Angles of the interior and exterior Triangles, by the Lines AG, BE, and FD, which will intersect each other in C, then is  $BC = x$ ,  $AC = y$ , and  $DC = z$ , the several Ages. From this Construction, the Method of Solution is evident: for, by letting fall the Perpendicular AI on DB, I find  $DI = 13$ , and  $BI = 21$ ; whence, all the Angles of the interior  $\Delta$  are found, *viz.*  $ABD = 54^\circ 18' 53''$ ,  $BAD = 59^\circ 39' 17''$ , and  $ADB = 60^\circ 1' 50''$ . Again,  $ADB + ADE = EDB = 126^\circ 1' 50''$ ; whence by having the two Sides  $DB = 34$ , and  $ED = 32$ , and the Angle included; the opposite Angles may be found, *viz.*  $BED = 27^\circ 52' 7''$ , and  $EBD = 26^\circ 6' 3''$ . But  $DAC = DEC$ , and  $DCA = DCB = ACB = 120^\circ$ . Hence, all the Angles are known, and by Trigonometry may be found  $BC = x = 21,8966$ ,  $AC = y = 19,6525$ , and  $DC = z = 17,2725$ , the Ages required.



### V. QUESTION 62, answered by Mr. F. Holden.

LET FP be the Object, P the Point where the Ball should strike; and A the required Place of the Musquet's Discharge. Then, per Question, the Force of the Ball, at P, will be

as  $\frac{1}{AP}$ ; but the Force, wherewith the Ball strikes the Object, will be as its absolute Force, and the  $\angle APF$ , conjunctly. Now,  $S. \angle APF =$



$\frac{AF}{AP}$  (*Rad. = Unity*) whence  $\frac{AF}{AP^2}$  w'll be as the said Force,

and therefore a *Maximum*; *i. e.* (calling  $AF$ ,  $x$ , and  $FP$ ,  $a$ ,)

$\frac{x}{a^2 + x^2}$ , whose Fluxion is  $= \frac{a^2 x - x^2 x}{(a^2 + x^2)^2} = 0$ , whence  $a^2 = x^2$ ,

and  $x = a = 40$  Yards; agreeable to the Proposer's, Mr. Littlewood's, Solution, who wrought out the same Conclusions, on which

we

we remark, that as 'tis known, from other Principles, that the greatest Random of a Projectile is an Angle of Elevation of  $45^\circ$ , consequently a Ball, discharged at that Angle of Elevation, must evidently have the greatest Force to strike an Object at the same determined Distance.

Mr. T. Cowper solved it in the same Manner, as did Philobertus and several others, whose Names may be seen in the Catalogue.

### VI. QUESTION 63, answered by Mr. Holden.

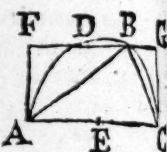
THIS Question is already solved in *Univ. Arith.* Prob. 3, and in *Ward's Young Math. Guide*, Part 3d Prob. 9, and the Theorem there, in Word is thus.

From half the Perimeter subtract twice the Quotient of the Area divided by the Perimeter, the Remainder will be the Hypotenuse.

In the present Case, the Hyp. = 50, whence the Sum of the other Sides = 70, and from the Square of this Sum subtract 8 Times the Area, the Root of the Remainder will be their Difference. Whence the other Sides are 30 and 40.

### RESOLUTIO à Dom. Huntleio.

EST O  $\kappa$  περιμετρος = 120 = 2s, Area = 600 = a, AC = x, eritque AB + BC = 2s - x; jam cum  $2 AB \times BC = 4a$ ,  $x^2 + 4a = (AB + BC)^2 = 4s^2 - 4sx + x^2$ ; abjecto  $x^2$  utrinque et æquatione reducta, fiet  $x = s -$



$\frac{a}{s} = 50$ ; porro autem ex Emersonii theoremate  $12^\circ$ , lib. 2<sup>o</sup>, ut  $x :: 4a : S$ .  $2 \angle A = 73^\circ 44'$ , ejus dimidium est  $36^\circ 52'$ , unde AB = 40, et BC = 30, per Theorema 3um libri supra nominati. Q. E. F.

*Investigatione superiori deducitur hæcce constructio.*

ASUME  $AC = s - \frac{a}{s} = 50$ , et fac τὸ παραλληλόγραμμον AFGC,

cujus Area aream trianguli datam duplo superet; dein dissecā AC in E, et radio EA describe semicirculū ADBC, et ductis AB, CB, erit ABC triangulus quæsitus.

Mr. John Wigglesworth says, "The Areas of all plain  $\Delta$ s are equal to the Rectangle of half a Triangle's Perimeter and Rad. of the inscribed Circle. And that in all right angled  $\Delta$ s, the Hypotenuse is equal half the Perimeter minus the Rad. of the inscribed

"Circle." Wherefore  $\frac{600}{60} = 10$  Rad. of inscribed Circle. And

$60 - 10 =$  Hypotenuse; whence as  $25^2$  (square half the Hypotenuse) : 600 :: 1 Rad. :  $\frac{60}{25^2} = .96$  the Nat. Sine doub. less acute  $\angle$

whence the other two Sides = 30 and 40.

Mr. William Richardson of Durham, Mr. John Fish, of Dartford Mr. Jo. Hilditch, Mr. Sam. Townendrow, who sent us the Eclipses computed

Philob.



Philomathes, Mr. T. Cowper, Mr. Phil. Williams, Mr. James Robinson, Mr. Alexander Rowe, Mr. Charles Smith, Mr. W. Dent, Mr. Henry Watson, and others to be seen in our Catalogue in the Ladies Chronologer.

VII. QUESTION 64, answered by Mr. James Robinson.

A Standard Guinea weighs 5 dwts. 9 gr. and a Shilling weighs 4 dwts. ; and a cubic Inch of standard Gold and Silver weighs 9,962625, and 5,556769 Ounces, respectively (*vide Ward's Mat. Guide, p. 121, 2d Edit.*) by which I find a Guinea is ,02697 Parts of a cubic Inch, and a Shilling ,03599 ; from whence a Shilling is found to be ,00902 Parts of a cubic Inch bigger than a Guinea. Note, a Guinea is about of the Solidity or Bigness of a Shilling.

Mr. Holden's Solution.

It is evident that the *Weights of Bodies of different Kinds are as their specific Gravities and Magnitudes conjunctly, whence the Magnitudes of Bodies will be as their Weights directly, and their specific Gravities inversely, i. e. as the Weights divided by their Gravities.* Therefore, if the specific Gravity of a cubic Inch of Sterl. Gold be call'd  $g$ , and that of Sterl. Silver  $s$ , the Standard Weight of a Guinea  $p$ , and that of a Shilling  $q$  ;

then their Mag. in cubic Inches will be  $\frac{p}{g}$  and  $\frac{q}{s}$  respectively, and the Difference of these two Expressions will be the Difference of their Magnitudes in cubic Inches.

Mr. Phil. Williams elegantly solved the same, as did Mr. Jo. Hilditch, and several others to be seen in the Catalogue aforesaid.

VIII. Question 65, answered by Plato.

EACH Goose has 3 Toes, 2 Webs, and 1 Heel, in one Foot, being the Things in Two Feet, to be marked differently.

If  $n=12$  be the Number of Things or Quantities to be differently marked, or elected by 1, 2, 3, 4, &c. then,

$$\begin{array}{l} n \\ \times \frac{n-1}{2} \\ \times \frac{n-1}{2} \times \frac{n-2}{3} \\ \times \frac{n-1}{2} \times \frac{n-2}{3} \times \frac{n-3}{4} \end{array} \left. \begin{array}{l} \text{are the} \\ \text{Num-} \\ \text{ber of} \\ \text{Things} \\ \text{or} \\ \text{Geese,} \\ \text{each} \\ \text{mark'd} \\ \text{with} \end{array} \right\} \begin{array}{l} 1 \text{ Mark} \\ 2 \\ 3 \\ 4 \end{array} \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} \begin{array}{l} \text{Marks} \\ \\ \end{array} \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} \begin{array}{l} \text{differently} \\ \text{disposed.} \end{array}$$

&c. to  $n$  Terms whose Sum  $= 2^n - 1 = 4095$ , for the Sum of all the Combinations, in  $n$  Things, taken by 1, 2, 3, 4, &c. which are the

Number of Geese. But 100 £. = 24000 Pence ; whence  $\frac{24000}{4095}$

= 5 d. 3 f.  $\frac{1815}{4095}$ , the Price of a single Goose, required.

Mr. T. Cowper making 14, the Number of Toes, Webs and Heels, in the two Feet of a Goose  $2^{14} - 1 = 16383$ , the Number of all the Combinations

Combinations. Whence  $\frac{24000}{16383} = 1d. 1f. \frac{14085}{16383}$ , the Price of each Goose, required.

Mr. F. Holden making 16 the Number of Things to be differently marked, solved it according to the above *Theorem*, viz.  $2^{16} - 1 = 65535$ , the *Combinations*; whence 1 f.  $\frac{30465}{96000}$  the Price of a Goose. These were all the Solutions that we received on right Principles.

IX. QUESTION 66, answered by Mr. Hartley, the Proposer.

IN the Equation  $x + y + z = x^3 + y^3 + z^3 = \frac{xy}{z}$ , (correcting  $\frac{xy}{z}$ )  $x$  being supposed the greatest Quantity, it is plain, that  $y$  must be an Unit, and  $z$  less than Unity; then the Question may be stated thus

$$\left\{ \begin{array}{l} x + z = s \\ x^3 + z^3 = s \\ \frac{x}{z} = s + 1 \end{array} \right\} \quad \begin{array}{l} x = ? \\ z = ? \end{array}$$

Now,  $x$  being the greater,  $s - x = z$  (less Numb.)  $= \frac{x}{s+1}$

But  $\frac{sx + 2x}{s+1} = s$ ; whence  $x = \frac{s^2 + s}{s+2}$ .

Again,  $s^3 - 3s^2x + 3sx^2 = s$ , Sum of the Cubes; and (dividing by  $s$ )  $s^2 - 3sx + 3x^2 = 1$ . Exterminate  $x$ , by substituting its Value, and it will be  $s^4 + s^3 - 4s - 4 = 0$ ; whence  $s = 1,588155$ , and  $x = 1,1455445$ ;  $y = 1$ , and  $z = ,4426105$ . W. W. R.

Mr. John Wigglesworth's Solution.

IF  $x$  be greater than Unity, then  $z$  must be less;  $\therefore$  let  $y = 1$ , then  $x + 1 + z = x^3 + 1 + z^3 = \frac{x}{z}$ ; or  $x + z = x^3 + z^3$ , and

$x + z = \frac{x}{z} - 1 = \frac{x-z}{z}$ ; put  $a + e = x$ ,  $a - e = z$ ; then  $2a =$

$x + z$ ,  $2e = x - z$ , and  $x^3 + z^3 = 2a^3 + 6ae^2$ ;  $\frac{x-z}{z} = \frac{2e}{a-e}$ ;  $\therefore$

$2a^3 + 6ae^2 = 2a$ , or  $a^2 + 3e^2 = 1$ , and  $\frac{2e}{a-e} = 2a$ , from which

Last Eq.  $e = \frac{a^2}{a+1}$ , which squared and substituted for  $e^2$ , in the

other Equation, we have  $a^2 + \frac{3a^4}{a^2 + 2a + 1} = 1$ ; whence  $4a^4$

+ 2a

$2a^3 - 2a = 1$ , where  $a = 7937005$ ; whence  $e = 35120719$ ; consequently  $x = 1, 14490769$ ,  $z = 44249331$ , required. But  $y$  may be taken something greater or less than 1, so that the Question admits of various Answers. *J. Wigglesworth.*

The same answered by Mr. F. Holden.

LET  $px = y$ , and  $qx = z$ , then, per Question, it will be  $x + px + qx = x^3 + p^3x^3 + q^3x^3 = \frac{p^3x^3}{qx}$ ; or dividing all by  $x$ ,  $1 + p + q$

$$= 1 + p^3 + q^3 \times x^3 = \frac{p^3}{q}. \text{ From the first and last of which,}$$

it is evident, that  $p$  and  $q$  may be any two Numbers, whose Sum  $+ 1 =$  their Quotient, *i. e.* if  $s$  be put for their Sum  $s + 1$  must  $=$  their Quotient. Whence the Values of  $p$  and  $q$  will be

$$\frac{s+1}{s+2}, \text{ and } \frac{s}{s+2} \text{ respectively, which are their general Values, what-}$$

ever we put for  $s$ . Also from the First and Second, we have  $x^2 =$

$$\frac{1+p+q}{1+p^3+q^3} = \frac{s+1 \times s+2}{s^3+s+2)^3 + s^2+s)^3}, \text{ whence the Values of } x, y, \text{ and } z, \text{ are as follows.}$$

$$x = \sqrt{\frac{s+1 \times s+2)^3}{s^3+s+2)^3 + s^2+s)^3}}; y = \sqrt{\frac{s^2 \times s+1)^3 \times s+2}{s^3+s+2)^3 + s^2+s)^3}} \\ = \sqrt{\frac{s^2 \times s+1 \times s+2}{s^3+s+2)^3 + s^2+s)^3}}; \text{ in which Expressions any}$$

Number whatever being put for  $s$ , will give the Values of  $x, y$ , and  $z$ , answering the Conditions of the Question.

X. QUESTION 67, answered by Mr. Thomas Cowper.

THE Weight of a solid Foot of Oak is £. 57,1874688 = Weight of the redundant Water; and the Weight of one solid Inch

$$\text{Rain Water} = ,0361169; \therefore \frac{57,1874688}{,0361169} = 1581,1183, \text{ the So-}$$

lidity of the immerfed Segment.

Let  $d = 14,8834$  Inches, the Diameter of the Sphere,  $s = 1581,1183$ ,  $x =$  versed Sine of the immerfed Segment, and  $r = 25236$ ;

$$\text{then (by the Rule in Stereometry)} \quad 3dx^2 - 2x^3 = \frac{s}{r}, \text{ whence } x =$$

217495 Inches, the Depth of the Part immerfed. Q. E. I.

Mr. James Robinson's Solution.

THERE will be just as much Water out of the Tub as is equal in Weight to the spherical Foot of Oak, and if 62,5 $\frac{1}{2}$  and 57,95 avoird. respectively equal to the Weight of a cubic Foot of Water and Oak; (see Ward's Math. Guide, p. 121) then 62,5 $\frac{1}{2}$ : 1728 :: 57,95 $\frac{1}{2}$ : 1602,2 cubic Inches of Water that run over, or the cubic Inches of Oak immerfed.

immersed. The Diameter of the Sphere is  $\frac{1728}{5236} 1\frac{1}{2} = 14,888, \&c.$

which called,  $5236 = a$ , and  $1728 - 1602,2 = 125,8 = b = \text{cube}$   
Inches of the Segment of the Sphere out of the Water, whose Height

let be  $= x$ ; whence we have  $3dxx - 2x^3 = \frac{b}{a}$ , whence  $x =$

$2,46$  Inches, and  $14,888 - 2,46 = 12,428$  Inches of the Diameter immersed in the Water. W. W. R.

The same was elegantly solved by *Philomathes*, Mr. Edward Gilly, *Philoteores*, Mr. J. Wigglesworth, Mr. James Hartley, Mr. Henry Watson, &c. whom we shall oblige in publishing their best Things, and Room and Opportunity serve.

### XI. QUESTION 68, answered by Mr. T. Cowper.

AS the *Lad* was 5 Days at reading in the Quarter, before he began  
D. D. D. Day  
to write, it will be indirectly, as  $18 : 5 :: 48 : 1,875 = \text{the Time}$   
he must continue at writing after the Expiration of the Quarter.

#### The Proposer's Solution.

I consider his Reading at  $18 d. \text{ per Quarter}$  alone, then his Writing must be allowed  $30 d.$  or  $2 s. 6 d. \text{ per Quarter}$ , alone also. The  $48$  must become due after the 14th, and before the 19th put  $b = 14$  Days, their Difference,  $c = 30$ ,  $d = 18$ , and  $x = \text{Time above the 14th}$ ; then  $b - x = \text{Time short of the 19th}$ . And it naturally follows  $d \times x = bc - cx (= b - x \times c) \text{ viz. the Time above the 14th}$   
 $x$ , multiplied by 18, must be equal to the Time under the 19th, and

$b - x \times 30$ ; Hence  $x = \frac{bc}{c+d} = 3\frac{1}{8}$  to be added to the 14th, making  $17\frac{1}{8}$ , when the 4s. ought to be paid.

N.B. This Question is of the Nature of those in the Rule of the Equated Time of Payments in Books of com. Arith. and may be solved after the same Manner, by making  $18 d. \text{ due at one Month}$ , and  $30 d. \text{ due at one Month}$  and 5 Days to find the equated Time for the Payment of both together? Now whether you put 29, 30, or 31 Days  $= m$ , and the latter Payment  $= m + 5$  Days, your answer will, by the Rule, come out always  $m + 3\frac{1}{8}$ ; so that  $3\frac{1}{8}$  is the true Time to be added. W. W. R.

#### Mr. James Robinson's Solution.

IF Mr. *Arrowsmith* reckons  $\frac{1}{4}$  of the Days the Year 1752 consisted of, then  $88,75 \text{ Days} : 1.5 \text{ sh.} :: 5 \text{ Days} : .0845 \text{ sh.} = \text{Wages for the first 5 Days Reading}$ ; and  $5.5 \text{ sh.} : 88,75 :: 4 - .0845 \text{ sh.} : 63,11 \text{ Days}$ , or *March 22d, 19m. past 4 in the Morning*, when 4s. become due; but if 11 Days more be reckoned to the Year, 4s. will become due the 24th of *March*, at 9 min. past 4 in the Morning. W. W. R.

The same was answered by Mr. Henry Watson of Harpswell, and many others.

### XII. QUESTION



III. QUESTION 69, answered by the Proposer, Mr. Alexander Naughtley.

LET  $t, m, s, = 15, 19, 28$ , the given Cycles ;  $tms = p = 7980$ ,  $= 100$ ; then  $\frac{p}{9} \times 3 = 59,85$  the Leap Days omitted in the

Gregorian Account. And abating 2 for the first and last Years of the Julian Period, when all the 3 Cycles begin and end together ; the

Theorem is  $\frac{p}{tm} + \frac{p}{ts} + \frac{p}{ms} - 2 = 60$ , the Days left out in the

Julian Account which exactly answers the Conditions of the Question,

$133 \times 60 = 7980$ , the Years of the Julian Period : And  $60 - 59,85 = 0,17 = 3h. 36m.$  the Difference of the two Accounts.

If now the Vernal Equinox falls on the 9th of March in the Julian Account, therefore  $4713 + 1752 - 764 = 5701$  ; and as  $7980 : 60 :: 5701 : 42,864$  ; that is near about 43 Leap Days supposed to have been left out since the Creation, which makes the Vernal Equinox to have been on the 21st of April, at the Creation, according to this Hypothesis.

Mr. John Holden's Solution.

The Julian Period consisting of 7980 Years  $= 15 \times 19 \times 28$ , it follows, that within the Compass of the Julian Period, the Cycles 15 and 19 begin together 28 Times, 15 and 28 begin together 19 Times, 19 and 28 begin together 15 Times, and taking one from each of these to compensate for the last general Coincidence, which happens at the End of the said Period, the whole Number of Leap-Days left out in the Account, by the proposed Way of Computation in the Interval of the Julian Period would be  $14 + 18 + 27 = 59$ , and according to the Hypothesis of the Æquinox falling back one Day in 133 Julian Years, it will in the whole Period have gone back just 60 Days ; 59 Days are left out as above, in the Interval of the Julian Period, wherefore, if only one Day were omitted for the general Coincidence at the End of the Period this Method of Computation would exactly agree with Solar Time, while the Gregorian Account, which leaves out 60 Days in 8000 Years, would be something too slow ; if in the Gregorian Account every four hundredth Year, reckoned from the Beginning of the Period were made Leap Year (as is reckoned from the Christian Æra) and the other hundredth Years common ones, it would, during the last 80 Years of the 1st Period, be one Day before the other Account. The same might be said of the 60 Years of the next Period, were these Computations carried on,

To find the Number of Days which the Æquinox would have gone back, advanced at any Time of the Period by the proposed Method of Computation ? RULE. Divide any given Year of the Period by 4, and subtract the Remainder from the Dividend ; then divide what remains after Subtraction by 133, 285, 420, and 532 separately, neglecting remainders, and as much as the first Quota exceeds or falls short of the Sum of the other three, so many Days will the mean Time of the Æquinox

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*Æquinox* be gone back, or advanced between the Beginning of the Period, and the given Year; by means of which *Rule*, and knowing that the *Vernal Æquinox* at the Beginning of the Period, would have been about the 29th of *April*, it will be easy to determine nearly the Time of the *Æquinox* at the Creation, when the Year of Creation itself shall be ascertained.

### XIII. QUESTION 70, answered by the Proposer, *Mr. Naughley.*

On *Martinmas* Day, 1680, 9 h. 43 m. P. M.

WHEN 6 min. past one that Day, the Comet, (whose Heat exceeded above 3000 Times the Heat of a red-hot Iron) being not above the Semidiameter of the Sun Northward of the Earth's Way, seemed to threaten the *General Conflagration*.

Let  $ae = XX - I = 99$ , and  $aa - ee (= \overline{a+e} \times \overline{a-e}) = 4X = 40$ ; then the two Theorems are,

$$\begin{matrix} a \\ e \end{matrix} \left\{ \begin{matrix} = \\ = \end{matrix} \right\} \left\{ \begin{matrix} \sqrt{XX+2X+I} = X+I \\ \sqrt{XX-2X+I} = X-I \end{matrix} \right\} = \left\{ \begin{matrix} XI=11 \\ IX=9 \end{matrix} \right\} \begin{matrix} \text{the 11th Day} \\ \text{of November} \end{matrix}$$

To 1596, the triple Product of 532 add 75, the last Year of the *Great Paschal Cycle*, after *Christ's* Birth; and their Sum 1671, + the Number of the Month, gives the Year 1680, when the Induction  $3 + 40 = 43$ , the odd Minutes, and 9 the Hours of his Birth. But as for the rest, let the Astrologers find them out.

#### *Mr. James Robinson's Solution.*

There is given the Product of the Sum and Difference of the Solar and Lunar Cycles, &c. and the Birth-day = 40, which is equal to the Difference of their Squares. To find two Square Numbers, having that Difference? *RULE*,—Resolve the given Difference into any two Factors; then the half Sum and half Difference of those Factors will be the Sides of the Squares having the Difference given. But as the Sides of the Squares will vary as you make use of different Factors, so by a Trial or two I find the Numbers to be 9 and 11, whose Product = 99, answering one Condition of the Question; if 9 be = the Cycles, &c. then the Year of his Birth will be 1680, on the 11th of November at 43 Minutes *post merid.* But if 11 be the Cycles, &c. then the Year of his Birth is 1682, on the 9th of January, at 45 Minutes past 11 *post merid.*

### XIV. QUESTION 71, answered by *Mr. T. Cowper.*

IT is found by Observation of *Jupiter's* Satellites, that Light passes over the Semidiameter of the Earth's Orbit = 20000 Semidiameters of the Earth, or 80000000 Miles in about 7 Minutes; whence its Velocity is 1142857 Miles *per Minute*. Now the mean Motion of the Sun or Earth *per Minute* is  $2''. 27''' . 50'''' = 8870'''$ : Therefore, if we say 1 Sem. Diam.  $\odot$  :  $8870'''$  :: 20000 Sem.  $\odot$  :  $177400000''' = 821'$ , or 951 measured Miles = the Motion of the Earth in its Orbit *per Minute*; whence the Ratio of the Motion of Light to that of the Earth in its Orbit is nearly as 1200 to 1.

*Mr. J. Wigglesworth* solved it likewise, and several others to be seen in the Catalogue in our *Ladies Chronologer*.

Mr. James Robinson's Solution.

WHEN the Earth is between the Sun and Jupiter, the Eclipses of his Satellites happen about  $7\frac{1}{2}$  Minutes sooner than they should by the Tables, and when the Earth is beyond the Sun, they happen so much too late, which shews, that Light has farther to go in the latter, than in the former Case by the Diameter of the Earth's Orbit, which at a Mean is about 162000000 Miles, by which I find that the Motion of Light is 180000 in 1' and the Motion of the Earth in its Orbit is about 16,12 Miles in the same Time; so that the Ratio of the Motion of Light to that of the Earth in its Orbit is as 180000 to 16,12 or about 11165 to 1. And if a Cannon Ball flies one Mile in  $8\frac{1}{2}$ ", then the Ratio of the Motion of the Earth to that of a Cannon Ball is as 137:1.

Mr. John Wigglesworth's Solution.

THE progressive Motion of the Earth in its Orbit is about 56000 Miles per Hour, or  $15\frac{1}{2}$  Miles per Second; the Motion of Light about 180000 Miles per Second, and the Motion of a Cannon Ball at its first Discharge from the Cannon, one Mile in about  $8\frac{1}{2}$  Seconds (See Martin's Philosophical Grammar, p. 59) or 117647 Miles per Second. Hence the Motion of Light to that of the Earth in its Orbit is as 11613 to 1, and the Motion of the Earth in its Orbit to that of a Cannon Ball as 132 to 1.

Mr. Samuel Townsford makes the Ratios as 16409 to 1, and 137 to 1.

XV. QUESTION 72, answered by Mr. John Holden, of Westhouse, Yorkshire.

SINCE B bids for 1 Foot in Length  $\frac{2}{3}$  of what A bids for a solid Foot, it is plainly the Merchant's Interest to sell to B all that Part of the Fir-Tree wherein one Foot in Length contains less than  $\frac{2}{3}$  of a solid Foot, and the rest to A; so that the Question to be determined is, where the Tree must be cut, that the Area of the Section may  $= \frac{2}{3}$  of a superficial Foot, i. e. 96 Inches. But the Diameter of the Circle whose Area is 96 Inches  $= 11.055816$ , which must therefore be the Diameter of the Section, and its Distance from the less End will be found by saying, As the Difference of the Top and Bottom Diameters  $= 18$  Inches: the whole Length  $= 60$  Feet :: the Difference between the Top Diameter and  $11.055816 = 5.055816$ : the Distance from the less End to the Place required to be found  $= 16.85272$  Feet; which also  $=$  the Number or Shillings B must pay  $= 16s. 10d. 23264$ . And the Content of the other conic Frustum is found by common Methods  $= 75.586286$  Feet, which at 18d. per Foot, comes to 5l. 13s. 4d. 2f. 2126. the Money which must be paid by A.

Solution by Philotheoros.

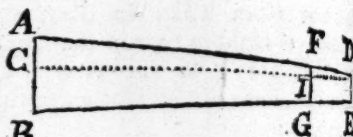
AS the Value of a Foot in Length is  $= \frac{2}{3}$  of the Value of a Foot solid, it is evident that the Diameter of the dividing Section must be equal to the Diameter of a Cylinder whereof a Foot in Length will be  $= \frac{2}{3}$  of a Foot solid;  $\therefore$  putting the required Diameter  $= x$ , we have

$$.7854x^2 = \frac{2}{3}, \text{ and } x = \frac{\frac{2}{3}}{3 \times .7854}^{\frac{1}{2}} = .921321 \text{ \&c. and } \therefore B \text{ must}$$

have 16,8525 Feet in Length, cut from the lesser End for 161. 10d  $\frac{1}{2}$  and A the Remainder, containing 75,5862 solid Feet for 5l. 13s. 4d.  $\frac{1}{2}$ .

### Fluxionary Solution.

LET  $CD = a$ ,  $AB = b$ ,  
 $2AC = c$ ,  $DE = b - c$ ,  $FG = x$ ,  
 $2FI = x - b + c$ ,  $m =$  Price of  
a Foot solid,  $n =$  Price of a Foot  
in Length, and  $.7854 = r$ ; then  
by simillar  $\Delta$ s,  $c : a :: x - b + c : B$



$$\frac{a}{c} \times x - b + c = DI, \text{ and thence } CI = \frac{a}{c} \times b - x; \therefore \text{the}$$

$$\text{Solidity of AFGB will be expressed by } \frac{ar \times b - x}{3c} \times \frac{bx + b^2 + x^2}{3}$$

$$= \frac{ar}{3c} \times \frac{b^3 - x^3}{3}, \text{ and } \therefore \text{the Value of the whole Tree} =$$

$$\frac{amr}{3c} \times b^3 - x^3 + \frac{an}{c} \times x - b + c \text{ a Maximum, and in Fluxions,}$$

$$nx - mx^2x = 0, \text{ whence } x = \frac{n}{mr}^{\frac{1}{2}}, \text{ as before.}$$

Mr. William Dent, Mr. Charles Smith, solved the same; as did Mr. Henry Watson, Mr. James Robinson, Mr. T. Corwper, Philomathes, and several others.

### XVI. QUESTION 73, answered by Mr. T. Corwper.

PUT  $b = 6$  Poles, and  $x^3 =$  Breadth of the Garden; then, per

$$\text{Quest. } \frac{bx^3}{5} = \text{the Length, and } b - x = \frac{bx^3}{5}^{\frac{1}{2}}, \text{ that is } b^3 - 3bx^2$$

$$+ 3bx^2 - x^3 = \frac{bx^3}{5}; \text{ whence } 11x^3 - 15bx^2 + 15b^2x = 5b^3, \text{ and}$$

$x = 2.008867$ , and thence the Breadth  $= 24.6134$ ; Length 29,53608, and Area  $= 726,983351472$ . Again, put  $a = 72,698335$

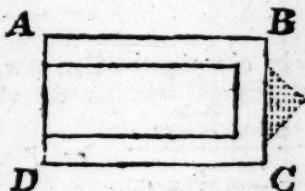
$$= \frac{1}{10} \text{ Area; } 4s = 83,68556 = \text{external Ambit of the Walk, and}$$

$y =$  Breadth thereof; then will  $4s - 2y =$  measurable Length of the Walk; but  $4sy - 2y^2 = 2a$ , i. e.  $y^2 - 2sy = -a$ ;  $\therefore y = \frac{1}{2}(2s \pm \sqrt{4s^2 - a}) = 1.816254$ . Lastly,  $3 : 2 : 4 :: 1,816254 : 2,2703175$  Poles  $= 12,4867462$  Yards, the Height of Mount Pleasant, required.



Solved by Mr. Phil. Williams, of Pitchford.

PUT  $6 =$  the Sum of Roots  $= a$ , and  $a - x =$  the Root of the Length, then  $a - x =$  Root of the Breadth,  $\therefore x^3$  and  $a^3 - 3a^2x + 3ax^2 - x^3 =$  the Length and Breadth, respectively; and per Quest. as  $5 : 6 :: a^3 - 3a^2x + 3ax^2 - x^3 : x^3$ ; whence, by Reduction and Transposition,  $11x^3 - 18ax^2 + 18a^2x = 6a^3$ ; solved  $x = 3,0911396$ ; whence the Length  $= 29,5362255$ , and Breadth  $24,6132$ .—Now the Breadth of the Walk is found thus. Let  $AB + BC + CD = b = 83,685$ ;  $\frac{1}{5}$  of Area  $= 145, 39.39 = a$ ; and  $x =$  Breadth of the Walk;



then, per Fig.  $bx - 2x^2 + 2x^2 = a$ ,  $\therefore x = \frac{a}{b} = 1,7373$ ; and

as  $3, 2 : 4 :: 1,7373 : 2,1716$ , the Height of the Mount required.

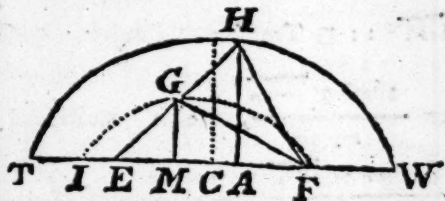
The same was solved by *Philomathes*, Mr. *Ja. Robinson*, Mr. *Jos. Hilditch*, by Mr. *Thomas Hunzley* elegantly in *Latin Diction*, and by several others.

# XVII. QUESTION 74, answered by *Belinda of Oxford*.

BY specific Gravity, the Ratio of the Surface to the Solidity of a Lock of *Fop's Hair*, papered or unbound, weighing one Third of an Ounce, is determined to be, *accuratly*, as the superficial Parts of his Brain to the Solidity, *viz.* a Ratio of Equality. The specifick Gravity of a Feather to Air is the Ratio of his Judgment to his Wit.

## The PRIZE-QUESTION, answered by Mr. F. Holden.

LET THW represent half the exterior, and IGF half the interior Ellipse; and from the Foci F and E, to any Point H in the exterior Ellipse draw FH, EH; make  $\angle EFG = GFH$ , and let fall the Perpendiculars HA, GM; call



$TC (= CW) t$ ;  $FC, m$ ;  $CA, x$ ; and  $AH, y$ ; then will  $FH = t - \frac{mx}{t}$  per Conics; and  $EH = t + \frac{mx}{t}$ ; and by Prop. of a Line bisecting the  $\angle$  of a Triangle  $EF : EF + FH :: EG : EH :: GM : HA$ , i. e.  $2m : t - \frac{mx}{t} + 2m :: GM : y \therefore GM = \frac{2my}{t - \frac{mx}{t} + 2m}$ ;

Also  $EF : EF + FH :: EM : EA$ , i. e.  $2m : t - \frac{mx}{t} + 2m :: EM : m + x$

$$m+x \therefore EM = \frac{2m \times \overline{m+x}}{t - \frac{mx}{t} + 2m}, \text{ and the same Expression,}$$

only *changing* the Sign of  $x$ , will give the Values of  $EM$  and  $GM$ , whence  $A$  falls on the other Side  $C$ , in which Case  $EM$  will =

$$\frac{2m \times \overline{m-x}}{t + \frac{mx}{t} + 2m}, \text{ or (when } M \text{ falls on the other Side } E) =$$

$$\frac{2m \times \overline{x-m}}{t + \frac{mx}{t} + 2m}; \text{ and this last, when } x=t, \text{ becomes } \frac{2m \times \overline{t-m}}{t + 3m}$$

which gives the Distance of the Point  $I$  from  $E$ . Now by taking the above Values of  $EI$ ,  $EM$ ,  $GM$ , and multiplying  $EI + EM$  by  $EF - EM$ , and dividing the Product by  $\overline{GM}^2$ , the Quotient will

$$\text{at last come to } \frac{(t+n)^3}{tt \times t + 3m} \times \frac{tt - xx}{yy}; \text{ and seeing } \frac{tt - xx}{yy}$$

$$= \frac{tt}{tt - m^2}, \text{ a constant Quantity, per Proposition of exterior Ell}$$

*Ellipsis*  $\therefore \frac{IM \times MF}{\overline{GM}^2}$  is also a constant Quantity; whence the interior

*Ellipsis* is also one of the common Kind, as the Focus of both are in the same Point  $E$ . And, by adding together  $EF$  and  $EI$ , we have

$$\frac{4m \times \overline{t+m}}{t+3m} = \text{Transverse of the interior Ellipsis; and } IM \times MF =$$

$$\overline{GM}^2 :: \square \text{ Tranf.} : \square \text{ Conj.} \therefore \square \text{ Conj.} = \overline{IF}^2 \times \frac{\overline{GM}^2}{IM \times MF}$$

$$= \frac{16m^2 \times \overline{t-m}}{t+3m}, \text{ which multiplied into } \square \text{ Transverse gives}$$

$$\frac{256m^4 \times \overline{t+m} \times \overline{tt-mm}}{(t+3m)^3} = \square \text{ of circumscribing } \square m, \text{ which } \div d, \text{ by}$$

$$16tt \times \overline{tt-mm} = \square \text{ of circum. Parallel. of the exterior Ellipsis: gives}$$

$$\frac{16m^4 \times \overline{t+m}}{tt \times \overline{t+3m}^3}, \text{ whose Root } \frac{4m^2 \times \overline{t+m}}{t \times \overline{t+3m}^{\frac{3}{2}}} \text{ expresses the Quotient of}$$

the two Parall. and consequently of the Areas of the two Ellipses, when the Interior is divided by the Exterior, and must therefore, per Question, be a Maximum. But from the Nature of the Expression it appears, that while  $m$  increases, the Value of the whole Fraction will encrease, and will  $\therefore$  be greatest when  $m$  is the greatest possible *i. e.* infinitely near  $= t$ , whence  $t$  must be indefinitely great, and the Transverse of the interior Ellipsis nearly = thereto; and because then

$=t$ , the Quotient will become  $= \frac{1}{\sqrt{2}}$   $\therefore$  the Area of the ex-

terior will be to the Area of the *interior Ellipsis*, as 1 to  $\frac{1}{\sqrt{2}}$

and their Conjugate Diameters and Areas are in the same Proportion.

Hence the VICTOR, F. HOLDEN, claims the Prize. — *Settle*, near *West-Houfe, Yorkshire*, Feb. 15. 1753.

*Chesterfieldensis* has, since this Gentleman's Solution, proved the same Truth, by a different, though elegant, *Process*, which we have not Room to insert. He has proved by his elaborate Operations, that when the Conjugate of the outer Ellipsis  $= 1$ , the Area of the circumscribing  $\square$  of the inner Ellipsis  $= 28043,116$ ; and when the said Conjugate  $= 0$ , or an indefinite small Quantity, the Area of circumscribing  $\square = 28043,12$ ; the Difference being only ,004.

N. B. When the outer Ellipsis becomes a Circle, the inner Ellipsis vanishes, or is a Minimum; conseq. when the *Trans.* and *Conj.* of the outer are most different, or Transverse indefinite, the inner Ellipsis is a Maximum by Nature of both.

## ANSWERS to the PARADOXES in last Year's PALLADIUM.

### I. PARADOX answered by Mr. T. Cowper.

THE Sides of the Field are the four *quadrantal* Arches of a Circle (as in the annexed Figure) there-fore, if we take ,2146, the Excess of the Area of the Square above that of a Circle, whose Side and Diame-ter are each Unity, and say ,2146 : 1 :: 320 Perches : 149,1463 Perches, the Square Root whereof  $= 38,415$  = Diameter of a Circle whose Periphery is 121,312884 = the Perimeter of the Field, required.



### II. PARADOX answered by the Parish-Clerk of Milton in Kent.

THERE is but one Family in the Parish of Milton, near Gravesend, in Kent; consequently the Occupier of the fruitful Soil of that Parish, cannot offend Religion or Modesty in kissing his own Wife only.

### EMENDATIONS of the Lady's Philosopher, No. III.

P. 32, l. 3, for  $x=0$ , read, when  $n=0$ ; for the Fluent  $ax+yx=ay$ , found, &c. P. 45, l. 5, for  $\frac{1}{k}$ , read  $\frac{1}{k}$ ; l. 6, for 3.46 read 2.46  $\frac{5}{2}$   $k^3$ ; l. 7, the same: l. 11, read, may be found, if you reduce it. P. 46 l. 9 for  $v^{\frac{3}{2}}$ , read,  $v^{\frac{1}{2}}$ ; l. 13, for Area, read &c. P. 48 l. 19, for  $x=y-1$ , r.  $y-a$ .  
E.

Remark.

## Remark.

WHAT a blundering Solution is given in Page 122, No. 4, *Math. Exercises*, where there is far more Labour to adapt a particular to a general Case, than with all R. H.'s Solution: This is the first Time I have ever seen a *general* Solution deduced from a *Particular*; though I have heard of deducing a particular Problem from a general One.

IT was expected that R. R. H. in *Lady's Philosopher* No. III. would have been more severe in his Answer to *Turner*; for who is obliged to take such Abuse from a low life Animal, who is not capable of hurting any Body but with his Tongue. If he puts in a cavilling Reply to No. III. *Ladies Philosopher*, it will contain Nothing.

GEORGE BROWN, of Oxford.

## EMENDATIONS of the Palladium, 1753.

# P. 21, Read, *The Sides of a Triangle*, (whose bisecting Lines drawn from the  $\angle$ s opposite are nearly alike) may be taken reciprocally as the bisecting Lines, for a near Solution, in the present Case. Because when the bisecting Lines, and consequently Sides of a Triangle are exactly alike, the Sides are reciprocally as the bisecting Lines, being then the same as the Perpendiculars, which are always reciprocally proportional to the Sides on which they fall, from the opposite Angles in all right lined Triangles whatsoever. And referring to Mr. *Cowper*'s Letter we find he sent us 19,71; 18,48; 17,39; the Sides in a near Solution; which we altered to 19,60; 18,52; and 17,20, the correct Numbers; without explaining Mr. *Cowper*'s Meaning and Words before, in the proper Place.

Mr. *John Chester*, of *Woolwich*, recommends the Writing of an INTRODUCTION to the *Mathematics*, with the Doctrine of *Plane and Spherical Triangles*, according to Mr. *Emerson*'s general Method, with Examples. The *Conic Section*, according to Mr. *Steele* to be introduced and whatever else shall serve for an Improvement on *Ward's Young Mathematician's Guide*, by which so many have been made Mathematicians.

He wishes to see a Method for resolving all the Cases of Water running out of a Pond or Vessel, according to a Perpendicular, or lateral Pressure, at any given Depth of Water, through a Hole either square, oblong, elliptical or circular. Mr. *Muller*, he says, in his *Mathematics*, 2d. Vol. takes Notice that very Few have wrote tolerably upon this Subject.

## Of the Abuse and Use of HISTORY.

SOME study History for Amusement, rather than Improvement and read the Life of *Aristides* or *Phocion*, of *Epaminondas* or *Sepia Alexander* or *Cæsar*, as they would a Story of *Knight Errantry*. Others study History to impose in Conversation, and distinguish themselves in Company. The Historians, a Degree above these, for Utility to others, are the Makers of Dictionaries, without growing wiser



better themselves by their Works. The *fourth Class*, of less Use than these, but of greater Eminence, are Men of the first Rank in Learning, to whom the whole Tribe of Scholars reverentially bow. In the immense Labours of *Scaliger*, *Bockart*, *Petavius*, *Usher*, or *Marsden*, the same Materials run thro' all their Systems of Chronology, and historical Relations. But, in these, the *essential* Materials are but few, which they have combined and diversified into vast Extent, by supposing Facts, or guessing at Truth, and uniting disjointed Passages in various Authors; with the Addition of *doubtful* Traditions of original Uncertainties, among different People, in remote *Centuries*. A Similitude of Sounds sometimes serve to prop a *System*. Of the few Materials they have, the learned Persons themselves acknowledge the very best, of such as pass for authentic, to be extremely *precarious*.

*Julius Africanus*, *Eusebius*, and *George the Monk*, laid open the principal Sources of, and corrupted this Science. They endeavoured to make profane History and Chronology agree with the Sacred; tho' the Chronology of the latter is not established sufficient for a *Rule*. The antient Monuments were digested into a System to be maintained; tho' none of them were transmitted in their original Form and Purity.

The *Dynasties* of *Manetho* are broken to Pieces by *Eusebius*, and his Fragments of them as suited his Purpose are introduced to his work. The *Codex Alexandrinus* we have from *George the Monk*; without other Authority. And Sir *John Marsden* undervalues his Authority in one Page, and yet builds his *System* upon it in the next. The Foundation of these *Systems* are not so much regarded as the Skill in forming them, or reducing the *immense* Antiquity of the *Egyptians* within the Limits of the *Hebraic* Calculation. These Systems are so many *incanted Castles*; but are nothing but Appearances. Dissolve the Charm, and they vanish; to do which we must begin at their Beginning, and examine the Foundations on which they stand. These are but faintly probable, or grossly improbable, and therefore the Superstructure can be no better. This Science is of the Kind that are a *Limine salutandæ*. To do less than examine the Foundation of the Superstructure, grave Authority may impose on our Ignorance: To do more than what is necessary would cast that Authority to *impose* false Science upon us.

To shew our Fondness for History, (inseparable from human Nature and Self-Love,) the Triumphs of *Odin* were celebrated in *runic Songs*, and the Exploits of our *British* Ancestors are recorded in the Songs of our Poets. The savage Inhabitants of *America* use the same Custom to this Day; and the long historical Ballads of their Huntings and Wars are sung at their *Festivals*. The Passion for History shews itself from our Infancy to the Grave. The Child fondly listens to the Tales of its Nurse, and learns to read by fabulous Legends, and Novels; proceeding to Romance, and then to History, in riper Years; and, in Age, the Desire of knowing what has happened to others, leads to the Desire of relating what has happened to ourselves. History, true or false, generally speaks to our Passions; but seldom to our Understandings.

Nature has opened the Study of History to all who can read and reason on what they read, and what he has made so desirable, Reason may make the best Use of to improve our Minds.

The WISE read not to sooth their Indolence, nor please their Vanity, nor drudge, like *Grammarians* and *Critics*, for others to study after them with greater Ease; nor affect the slender Merit of being great Scholars, by searching for Secrets in the dark Mazes of Antiquity. Nature never intended our Curiosity solely for its Gratification. The true Use of our Enquiries is Improvement of private and public Virtue. Applications neither tending directly, or obliquely, to make us wiser and better, are but an useless Sort of *Trifling*. And History, of all other Application, seems to be the best for training us up to private and public Virtue. History teaches by Example of the greatest Force. The wisest Lessons of Virtue go but a little Way to convince the Judgment, and determine the Will, till they are enforced by Example, of what, in the like Cases, has happened to others, on a Neglect of the same Precepts. Instruction, by Precept only, requires a long Deduction of Reasoning, grounded on Authority, to convince us. Examples immediately appeal to our Senses for carrying Conviction. We yield to *Fact* when we resist *Speculation*. Examples too, appeal to our *Passions*, asswaging or animating them on the Side of Judgment, forming Habits by Repetition, and securing the whole Man of a Piece in Observance of Precepts, first moved by Example. The most effectual Way of commanding or governing, is by Example, whereby Tyranny itself becomes persuasive. A virtuous Example is worthy the Imitation of all Princes. The Force of Example is not immediately confined to Sight, but shews itself in a *Habit* of recalling to the Memory (by the Means of History) Examples, worthy of Imitation. Many of the Contemporaries with *Socrates* profited more by his Example than Discourse. *Seneca* observes, that *Metrodorus*, *Hermachus* and *Polyænus*, great Men, were formed by living under the same Roof with *Epictetus*, and not by frequenting his School; which are singular Instances of the Force of Example beyond Precept.

The Citizens of *Rome* placed the Images of their *Ancestors* in the *Vestibules* of their Houses, so that going in or out, these venerable *Bustoes*, meeting their Eyes, recalled to them the glorious Actions of the *Dead*, to excite the *Living* to emulate the great Examples of their Forefathers; and the Success answered the *Design*. The Virtues of one Generation became thereby transfused into many succeeding; and the noble Spirit of *Heroism* and *Patriotism* was maintained through many Ages of that glorious *Commonwealth*. These are *Instances* of the Force of remote Example, from whence we may conclude that Examples of more modern Date are necessary.

The great School of Example is the World, and the Masters of this School are History and Experience. The former is necessary to prepare us for, and to accompany us under, the Discipline of the latter.

The Study of History is insufficient without Experience, and Experience itself is so without Genius. Genius is preferable to the other two but are best all three together: for however great a Genius may be, and how much soever he may acquire new Light and Heat in his rapid Course of Enquiry, he will never shine with full Lustre, nor shed the full Influence he is capable of, unless, to his own Experience, the Experience of other Men and other Ages, are added. Genius without the Improvement of Experience, is, what Comets were imagined to be, blazing Meteors, irregular in their Course, and dangerous of Approach.

of no Use to any *System*, and capable of destroying any. Mere Sons of Earth! If they have Experience without Knowledge of the History of the World; and but half Scholars in the Science of Mankind. If they are conversant in History without Experience, they are worse than ignorant; mere *Pedants*; always incapable, and oftentimes meddling and presuming. The Man of *Genius, History and Experience*, joined to *Integrity*, is an Honour to his Country, and a public Blessing!

LELIUS.

### The ORIGIN of the FAMILY of PRIDE.

THIS LADY, whom I recognize, is descended from an *immortal Hero*, whose memorable Exploits have been transmitted to us by the most celebrated *Poets and Historians* of the first Ages. For after a diligent Search, among the Rubbish of Antiquity, I find her to be the Daughter of *Lucifer*, who, with her Father, and the rest of the rebellious Angels were tumbled down from Heaven, in her Minority, before this World was created. The Arch-Traitor, *Lucifer*, no sooner recovered of his Surprise than he began to contemplate his former State of Glory, and to reflect upon the dismal Consequence of his late Defeat: Whereupon, he meditated *Revenge*, (after calling a Council, at which his Daughter *Pride* attended) he took with him his Daughter, and went in Search of the New World, took a View of our first Parents in Paradise, and envying their happy State, determined, within Himself, to bring them over to his Party. The Lady having received Instructions from her Father how to behave, was by him conducted to the Garden of *Eden*, that Seat of Bliss and native Innocence. Here she began to practice her Inchantments and wicked Machinations upon our Mother *Eve*, as she lay asleep, by whispering in her Ear, the Advantages which would accrue from disobeying the Command of her Creator, at the same time inspiring her with the Thought of *Vanity and Ambition*. PRIDE having thus far executed her Commission to the Satisfaction of her Father, they both descended to *Pandemonium*\*, amidst the Acclamations of a diabolical Multitude!

*Eve*, having strongly imbibed the pernicious Principle, her Soul was intoxicated with the pleasing Poison, and she communicated the Infection to her Successors, who gradually distributed it to the whole Race of Mankind; nor have the Effect of her Delusion been less extensive; for the Family of *Pride* increases every Day, and like a young *Female Plant*, newly taken out of the Nursery, soon throws out its luxuriant Branches, drops Seed upon the Earth, and furnishes a second Progeny from Generation to Generation. To enumerate all the Branches of this Family of *PRIDE* would be an *Herculean Labour*. *PRIDE* often makes her Appearance in Courts and Cottages; amidst *Opulence and Poverty*; with the *Peer* and the *Peasant*; the *Merchant* and *Mechanic*; nor have the *Statesman, Physician, Lawyer, Divine*, with Men and Women of all Professions and Denominations, been unactive to encrease this Family. Those richly attired (overvaluing themselves) are odious and contemptible! but those clothed in Rags, are shocking and abominable! Persons the nearest allied to *PRIDE's* puissant Ancestors are

\* *Lucifer's Palace.*

are those who assume to themselves any Qualities to which they are inferior, and not justly intitled; who, possessed of Power, expect Homage, merely for that Possession. Or, blessed with some peculiar Gifts of Nature, for no other Reason, arrogantly set themselves up above their Fellow Beings, and evince themselves to be the Spawn of the *Rebellious Brood* aforementioned; the Sons and Daughters of Lucifer; and must expect to share the same Fate.

It is not *Name*, however awful, nor an *Office*, however important, that ought, or can bring Reverence to the Man who possesses them unworthily. *Folly* and *Vanity* should have no *Asylum*; *Titles* cannot sanctify Crimes; though they sometimes protect Criminals. I have all possible Esteem for Quality, and Men of Station and Dignity! But if a Man of Quality acts like an *Ape*, a *Gamester* or a *Profligate*; if he is vain of his *Lineage*, without good Qualities, and looks down on all below him in Station, with Contempt! his Lordship must expect none of my Reverence, notwithstanding his honourable Situation.

*Omne animi vitium tanto conspectius in se*

*Crimen habet; quanto major qui peccat habetur.*

JUVEN.

If Men should be worshiped for their Power only, the *Devil*, who has much more Power than Men, as we are told, may as justly command our Adoration.

Many of the ancient *Greek Philosophers* took great *Pride* in the Length and Gravity of their Beards. But suppose an *Old He Goat*, who has as much Beard and Gravity as any of them, had been placed in one of their *Chairs*, it is doubtless he would have provoked the *Sage*, and diverted the Assembly. Pomp and Beard therefore became ridiculous. Yet Nothing that constitutes a *real Philosopher*, neither Virtue, useful Learning, nor any Thing that is good and praise-worthy, can be justly ridiculed. To descend from the *Great* to the middle Rank of People, and from the *Ancients* to the *Moderns*, *Pride* appears in the Shape of the *Country Squire*, the *Git*, the *Pedant*, and the *Literati*, of the present Age.

A young Gentleman lately arrived in Town from one of the Universities, and proud of being reputed an *Author*, from an Opinion that all that was to be learned must be there acquired, he accordingly launched out in the *Pamphleteer-Frigate*, without a *Pilot*, and being entirely unacquainted with the Art of Navigation, either in *Theory* or *Practice*, was, in his first Voyage, cast away among the Rocks of *Pedants*, *Formalists* and *Coxcombs*.

Soon after him a *Second* embarked on Board another Vessel, with a sufficient Convoy, bound to the Island of *Common-Sense*; but knowing little of the Nature of that Trade, and less of the Constitution of that Government, was, on his Arrival there, imprisoned for a *Smugler*; who, after having his *Cargo* searched, was condemned to be debarred from *Pen*, *Ink*, and *Paper* during Life, and to restore to the right Owners all he had pirated from them. Being pretty much chagrined at this hard Sentence, and swollen with *Pride*, at the same Time, he burst in *Pieces*! In his Body, thus divided, were found many precious *Medals*, fraudulently taken from the *Ancients* and *Moderns*, somewhat defaced, though the Inscriptions were legible.

Notwithstanding the ill Success of these *Two Pretenders*, there immediately appeared a numerous Company of Candidates, offering their Lives and Fortunes towards the Support of *Literature*; each asserting his



his peculiar Right to *Wisdom and Rhetoric*; and demanding the Command of the next *Fleet* which should be sent to the *Island of Utopia*. *Athenion Pallas* summoned a Council, and ordered the respective Candidates to attend, that she might be the better Judge of their Abilities, and thereby give Merit its proper Place.

It is not my Business to mention Names, or to pourtray an *Ass* from a *Goose*, or *Peacock* for a *Swan*; *PRIDE* herself in *Man's* Apparel assumed the Preference, and being mounted upon an *Extrinsice* thus harangued the sublime Audience.

"MY LORDS,

"*IMMORTALITY* is your Birthright, to which glorious Situation. I have a Claim, superior to all Mankind; *Immortality* and *Assurance*, [or according to the *Horatian* Phrase, a vicious *Modesty*] will not suffer me to approach to that Dignity without *INSPECTING* the respective Merits of my *Antagonists*. Let them confront me either separately or together. Has any one among them the Voice of *Stentor*? Call him forth. Is there an *Adept* in any Science, though I know Nothing of the Matter, he shall, from me, receive Conviction, and be struck dumb in a Moment. I am well acquainted with Words, understand the Nature of Eloquence, have *Quintilian* by Heart, and am a good *Proficient* in all the modern Languages.

"Hence, I can gather such *Flowers* as they never had the Honour to smell to, and make a *Nossgay* of Words, picked out of *French*, *Italian* and *Spanish* Garlands, which will send out such *Effluvias*, as intoxicate half the learned World, and lull them to Rest in a Moment.

"I have often observed, that a *Foolish Speech*, supported with *PRIDE* and *Vebemence*, will conquer the best Sense, and the best Cause that ever came before a *Court of Judicature*. For this very Reason, MY LORDS, I am resolved to persist in my own *Self-Conceit*, and to say of all the Authors I have imperiously called to Review, that I, even I, am *secundus Nulli*."

The ASSEMBLY OF GODS continued a while silent, at this audacious Speech; at length *PALLAS*, herself, addressed him as follows.

"Sir, I dispute not your Title, as you are acknowledged to be the Son of *Esculapius*, and the Grandson of my Brother *Apollo*; but, in Point of Justice, I must hear what another Candidate has to offer, who is ordered to appear. Here he is,—hear him.—

MY LORDS, I must own, I am always very cautious of reasoning with such *Mortals*! Their *first* Argument is generally Assertion, the second an Assront. From a conceited Education, and boasted Conversation arise their Impatience for Contradiction, and their Readiness to contradict.

There is no Passion, which screens itself under more Disguises, or more imperceptibly insinuates itself into the Hearts of Men than *Pride*, which has made me often reflect, with Pleasure, on that Sentence in *Holy Writ*, which informs us, that *Pride was not made for Man*. For indeed there is not one single View in human Nature, under its present Condition, which is not sufficient to annihilate all the seeds of it. There is nothing in the Will or Understanding that can tempt any considerable Creature to Vanity. Were he not a sinful Creature

Creature he would not be subject to lawless Passion, which arises from the Depravity of his Nature.

Were he not an ignorant and miserable Creature, he could not have those wretched Objects of Comparison before his Eyes, which make one Man value himself above another. A wise Man will be contented, that his Glory be deferred till he shall be truly glorified, and his Happiness is assured.

If there be any Thing which makes human Nature ridiculous to Beings of superior Faculties, it is PRIDE. They know so well the Vanity of those imaginary Passions, which swell the Heart of Man, whether in Birth, Fortune, or Title, which one Mortal enjoys above another, that it must either very much astonish, or very much direct them to see a Man puffed up above his Neighbour, on these Accounts; when, at the same time, he is obnoxious to all the Calamities of his Species.

UPNORNSIS.

### Of DRUNKENNESS.

AMONG the many fashionable Vices predominant in this Kingdom, I know not one, which is attended with more dreadful Consequences than that of *Drunkennes*, which transports Men beyond the Bounds of Moderation, even to unwarrantable Practices. All the stated *Maxims*, in Relation to the Nature of Mankind, which have been long ago settled and established by Philosophers, and observ'd by Men, are, by this pernicious Practice baffled and exploded, and we have nothing left for Contemplation, but what the wild Extravagancies of an over heated Brain suggests to us, and which are sure to raise all our sensual Appetites to a Pitch of Madness, and by a creatable *Metamorphosis* transform us into Brutes.

Fatal Experience has enough convinced me that this vicious Practice is the most certain Method to corrupt Men's Minds, and debauch their honest Principles, to create Discontents, Disorders, Violences and Revolutions amongst Men, and to actuate the many headed Multitude. For if a modern Patriot makes them drunk once or twice a Year, the Injury is a Kindness which they shall never forget; and he is sure of their Hearts and their Hands for having so generously robbed them of their Time, their Innocence and their Senses. They are grateful for the Mischief done them, and in Return are ready to do any for him: while he who restrains them from *Drunkennes*, or even punishes them for it, is a far greater as he is a real Benefactor; but such a Benefactor as they will never forgive, and he is sure to loose their good Will probably to purchase their Hatred.

This shews how much their Senses are stronger than their Understanding; that they are governed, not by Judgment, but sensual Appetite; and, that one Guinea in Drink, will oblige them more than Two in Cloths, or in any other dry Manner. Liquor warms their Hearts and fills them with the Person who bestows it, who is the Author of so much Joy and Delight, as they feel! so that in raising Parties and Factions, inflaming the Mind goes a thousand Times farther than reasoning and teaching; and while they are under the Dominion of *Bacchus* they become most prone to Tumults and Insurrections.

This may be sufficient to shew the great Dangers which arise from *Vice*, with Regard to the public Tranquility: the fatal Effects produced by *Drunkenness* in private Families being by far the more common are by far the more numerous.

Can there be a more shocking Sight than to behold an industrious Tradesman ruined by his Wife's Intemperance? Or, on the contrary, to observe a hopeful Family reduced to Want and Misery by the Prodigality of the Husband? These are Objects which frequently excite the Indignation, but very seldom excite the Compassion of good Christians, especially while the young *Brood* remain under the Tuition of their iniquitous Parents; and it is Ten to One are insensibly led into the same evil Practice by their Example.

But when this *horrible Crime* is introduced among the lower Class of People, and is by them practised with Impunity, what Words can describe it? No Language can paint out its Wickedness, nor can the Picture of it be drawn so fully as to shew the World half its Blackness and Deformity. They anticipate *Damnation*, and make their Dwellings a local *Hell*! They feed upon liquid Fire! and all their Cloths are burnt off their Backs by its *Effluvia*. Oaths, Curses, Sighs and Groans, are their continual Entertainment; Hunger and Poverty their perpetual Companions. Who can observe such a *hellish Scene* as this without being ashamed of their own *Species*? Who would not wish himself to be a *Monkey*, rather than a *Man* and guilty of such Male Practices? The meanest *Reptile*, rather than a *Woman* possessed of these Transgressions? Of which, with Shame be it spoken, there are none so flagrant, catching, and mischievous. What is still worse, it is incurable of Cure; because it will not accept a Remedy; therefore spreads its baneful Influence wider and wider every Day, so that it is to be feared the Increase will at length become *epidemical* and *universal*.

UPNORENSIS.

To the AUTHOR of the PALLADIUM and LADIES  
CHRONOLOGER,

*Sunt geminae somni Portae, quarum altera fertur  
Cornea, quā veris facilis datur exitus Umbris:  
Altera candenti perfecta nitens Elephanto,  
Sed falsa ad Caelum mittant Insomnia Manes.*

VIRG. Æneid. VI.

INTRODUCTION.

SIR,

NOT doubting but you have read of the *Sortes Virgilianae*; I have happily made choice of this Motto from that celebrated *Latin Poet*, whose Works have been held in the greatest Esteem for above the 17 centuries, and are likely to maintain their Dignity till the general Solution. Our Author seems to imagine, that there are two *Sortes* or Dreams, the one true, the other fabulous: The former proceeding from a Gate made of *Horn*, the latter from one of *Ivory*. Nor was he

F

ingular

singular in this Opinion, for the same Thing has been mentioned by *Homer, Herodotus, Lucian, Ausonius, Plato*, and many more of the ancient Writers, Philosophers, Poets, and Historians.

From which of the two Gates or Passages, my Dream issued, I could not determine, But in an Age where Reason is kept hoodwinked, where the want of the Light of true Knowledge produces many Superstitious Practices; where Astrologers are believed and consulted, and their judicial Predictions are made an *Article* of Religion, which the *High Priests* are obliged to sanctify, I surely may presume, that a *visionary Scene*, of the dreaming Kind, will not prove unacceptable, more especially when it carries its particular Use with it; and may prove altogether as instructive to the Readers, as do the boasted Hieroglyphs of a *S—k*, a *H—ly*, a *W—d*, or a *W—y*, to their Auditors.

Last Night I had a Dream of so extraordinary a Nature, and which made so strong an Impression upon my Mind as cannot be erased; neither can I forget or forbear communicating it to you for the good of the Public.

#### A D R E A M.

Methought I was walking in a spacious Street, near a magnificent Palace, when a Foreigner, in the Habit of a *Chinese Mandarin* met me accompanied by his Interpreter, who accosted me in the *Portuguese* Language after the following Manner.

“ S I R,

“ We are entirely unacquainted with the *Customs* of your Country being, after a long and tedious Voyage, but just arrived in this *Island*, partly for Pleasure, partly for Instruction and Information.  
 “ not long ago we came out of a House, where we observed a Number of Tables in a Room, round some of which were placed several Parties of Men and Women, who seemed wonderfully delighted with poring upon a certain oblong Square Piece of painted Paper which they held in their Hands: In a different Part of the Room we took Notice of another Company, who were, altogether, attentive on shaking an *Oval Box*, and throwing therein two cubical Bodies of Ivory, with various black Spots indented. Being perfectly ignorant for what Use these different Appearances were designed, we really imagined they were performing some *magical* Ceremony.  
 “ That the Figures we saw delineated in the Bits of Paper, were some mystical Charm; and that the *Cubes* of the Ivory were portentous Omens of *Good and Evil*. What confirmed us in this Opinion was the various Maces and Distortions, which appeared in several of their Countenances, with their awkward and uncommon Gestures. As you desire to understand the *Portuguese* Language, be so good, Sir, as to turn with us to the Place above-mentioned, and tell me what they are doing, that I may inform my MASTER of their Intentions.  
 “ had almost forgot, *continued he*, to tell you that at one of the Tables we saw a great many Pieces of Gold and Silver pass and pass, and at the other all was hush, all Silence, and nothing but painted Paper, and Pieces of Ivory”.



I readily guess'd where they had been, tho' in a *Dream*, and to show my Respect to *Strangers*, I returned with them, and after walking round the Room, and viewing the Company, we retired to a Tavern, at Hand, where I explained the whole Affair. For though in a *Dream*, I still remember every Word that pass'd during the whole Conversation. Those who sit down at the Tables, said I, are at Play, and those who stand round them are *Bettors*, or *Winners* or *Losers*, by the Play, who observing the different Skill of the Gamesters, lay their Money on that Side where they think they see the greatest Judgment and Dexterity. Here a *Nobleman* shall be cheated out of his Estate by a *Sharper*, and a substantial Merchant or Tradesman, from a Principle of *Avarice*, shall ruin himself and Family, by engaging with a *Beggar*. Nor are these the worst of Evils, which attend this Fever of the Mind: The Distemper is grown epidemical, and become the favourite Foible of both Sexes. You cannot rest an Hour, after Dinner, even where you are invited, or come as a casual *Guest*, without being deemed guilty of ill Manners, if you refuse to make one of the Party at these Diversions; whether you like or dislike, are ignorant, or have Understanding enough to know what you are about; so much that you often pay double the Price of your Entertainment. Here, methought, the Mandarin lift up his Eyes and Hands, and cried out in a loud Voice, *Fy shet yalp Tortib yam odg Dens em Ases Sena Outb Tias*. i.e. *If these be your northern Diversions, may I remain in Ignorance, and by the Blessing of the UNKNOWN GOD, return safe again to the East.*

Hereupon I awaked, and repeated the following Couplet.

*Fortune, a Goddess, is to Fools alone,  
The Wise are always Masters of their own.*

Yours, &c.

A RATIONALIST.

## The MUSES BANQUET.

On WIT.

To Mrs. Elizabeth B---h---n, Relict of the late Mr. Henry B---h---n, F. R. S.

True WIT is like the brilliant Stone,  
Dug from the *Indian Mine*;  
Which boasts two various Pow'rs, in One,  
To cut, as well as *shine*!  
Genius, like that, if polish'd right,  
With the same Gift abounds,  
Appears, at once, both keen and bright,  
And sparkles, while it wounds!

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To

To the Lady *T—nk—lle*, on her reading *Sherlock*, on  
Death. By the *E—* of *Cb—*d.

1. MISTAKEN Fair! lay *Sherlock* by,  
His Doctrine is deceiving;  
For while he teaches us to die,  
He cheats us of our Living.
2. To die's a Lesson we shall know,  
Too soon, without a Master;  
Then let us only study now,  
How we may live the faster.
3. To live's to love; to blefs, be blefs'd  
With mutual Inclination;  
Share then my Ardour in your Breast,  
And kindly meet my *Passion*.
4. But, if thus blefs'd I may not live,  
And *Pity* you deny;  
To me, at least, your *Sherlock* give,  
'Tis, I must learn to die.

*The DIMPLE, to Lucinda.*

*LUCINDA* young, the fair and gay,  
A verdant Bow'r inclos'd,  
The *Little Wanton* tir'd with Play,  
In downy Sleep repos'd;  
A *Bloom* so like the Peach's Hue,  
Her glowing Cheeks express'd,  
A Bird, eluded, eager flew,  
And seiz'd the luscious Feast.  
*Ab!* lucky Spoil, though rude th' Alarm,  
*Lucinda* weeping rose,  
Since, to the Wound, its smiling Form  
That killing *Dimple* owes.

*Upon a Window, in a Room of the Tower of London, in  
written, R. Walpole, 1712; underneath which are the  
following Lines.*

GOOD unexpected, Evil unforeseen,  
Appear by Turns, as Fortune shifts the Scene,  
Some, rais'd aloft, come tumbling down amain,  
And fall so hard, they bound and rise again.

*On a Sermon against National DEPRAVITY.*

WHILE his *Lordship*, with Ardour becoming his Station,  
Inveighs at the Folly and Vice of the Nation;  
But the Sins of the *Clergy* forbears to discover,  
And those of the *Rich* complaisant passes over,  
One would swear that the former were canoniz'd Saints,  
And the latter lay under no Sort of Restraints.

*On a Gentleman of Great Parts, but a Great Rake.*

As *Fricus* bawdy fung and spoke,  
Says *Biblio*, prithee hush!  
Where is the *Humour*, where's the *Yoke*,  
To shew you cannot *blush*?

*Emperor ADRIAN's Verses to his Soul, imitated*

POOR, little, pretty, flutt'ring, Thing!  
Must we no longer live together?  
And dost thou prune thy trembling Wing,  
To take thy Flight, thou know'st not whither?  
Thy humerous Vein, thy pleasing Folly,  
Lie all neglected, all forgot;  
And pensive, wav'ring Melancholy,  
Thou dreadst, and hop'st Thou know'st not what?

*An Epigram by a Sea-Officer.*

NOT far from *Old Medway*, new Story makes known,  
There lived a gay Damsel the Taste of the Town;  
Whom a bold Son of *Neptune* chas'd hard, while in Sight,  
In Hopes to come up with the Prize before Night.  
To whom the GREAT SIRE, "What my Boy are you doing?"  
"She carries most Men! You are seeking your Ruin!"  
"Remember, young Lover, you must pay the PIPER,  
"Though she trips like a Fairy, she stings like a V-I-P-E-R."

*PRINCESS PERIWINKLE, attended by several Maids of great Honour.*

Sure such a Wretch as I was never born,  
By all the World deserted and forlorn;  
This Bitter-sweet, this Honey-Gall to prove,  
And all the Sugar and Vinegar of Love,  
Pride, Love and Reason will not let me rest,  
But make a devilish Bustle in my Breast.  
To wed with *Fisgig*, Pride, Pride, Pride denies  
Put on a *Spanish-Padlock* Reason cries,  
But tender *Gentle Love* with every Wish complies.  
Pride, Love, and Reason, fight till ye are cloy'd,  
And each by each in mutual Wounds destroy'd.  
Thus—when a Barber and a Collier fight,  
The Barber beats the luckless Collier white;  
The dusty Collier heaves his ponderous Sack,  
And, big with Vengeance, beats the Barber black.  
In comes the *Brick-Dust-Man*, with Grime o'erspread,  
And beats the Barber and the Collier red.  
Black, Red and White in various Clouds are tost,  
And in the Dust they raise, the Combatants are lost!

NUTCRACKER.

## OF STORY-TELLING.

AS *Story-Telling* greatly enlivens Conversation, those, who have a Disposition for this *Art*, should choose such Circumstances, and tell such Stories as naturally arise out of the *Subject-Matter* of Entertainment; which should be assisted by proper Gestures and Agitations. There is a kind of *Drama* in the conducting of a well told Story, and the pointing of it is similar to the *Epigram*. If you raise the Expectation of the Audience, you cannot retreat with Honour; as it will gain you no Credit to end your Relation, with the empty Remark of *That's all*. The Hearers should feel the Force, as if they were electrified.

The Accomplishments of a *Story-Teller* necessary to divert the Audience (wherein so few have Success, and so many fail) are *Good-sense*, *Humour*, *Clearness of Conception*, *Vivacity*, and a *Fluency* of Expression; and to use nothing of Gesture, or Expression, but what arises out of Nature. It has sometimes proved the Lot of a single Person to suffer the Persecution of a *long Story*, who never offended, yet was obliged to hear what neither concerned him, the *Story-Teller*, nor any Body else to know. Men of this unaccountable Turn of Mind, are as solicitous to be heard, as if the *Lives*, *Fortunes*, and *Felicity* of all Persons in the Kingdom depended upon the Relation, while they make their Hearers uneasy, and themselves ridiculous, by their impertinent *Lequacity*. This *Infirmity* of Mankind extends itself beyond the Bounds of *Story-Telling* to other Essays of their intellectual Endowments.

When a *Preacher* of God's Word happens to be one of this Class of *Impertinents*, you may know him by his numerous *Divisions*, and *Subdivisions*, far fetch'd *Criticisms*, incoherent *Digressions*, useless *Remarks*, tedious *Repetitions*, and *Inferences* to no *Premises*; besides by his weak Answers to strong *Objections*, and *Objections* raised to *Matters* that required none; protracting his unedifying Discourse, and dispensing *Opium* for an Hour and a Quarter to his Flock, consisting of seven Sleepers to one Hearer.

If he be of the *Law Tribe*, he shall, with an uncommon Volubility of Tongue, dilate upon a Subject for two Hours together, that might be explained in two Minutes. When the *Judges* and *Jury* are so captivated with his Shew of Reasoning, that they shall attend with as much Gravity, as if all he advanced was sound Truth and solid Argument.

If he be a Member of the *Upper* or *Lower House*, he does not proceed four Sentences before the *Discerning* know where to have him an Hour hence; during which Time they divert one another about *Matters indifferent*, 'till the Gentleman has done.

If he be one of the *modern Scribes* that values himself for his Fluency of Style and pompous Turns of Expression, rather than for being clear and concise you shall find him spinning out a Twelve-penny Pamphlet of Incoherences, the Substance of which might have been intelligibly contained in a single Sheet. And by the like letting off a Multitude of Words (to little Purpose) he shall, in a short Time be able to compile Volumes for the Bookseller, not worth one Fourth of the Copy-Money they are sold for, without a proper Abridgement.



The *Story-Tellers* are divided into the *Pitby*, the *Tedious*, the *Marvellous*, the *Insipid*, and the *Delightful*, omitting the *Filthy*.

The *Pitby* *Story-Teller* is he who conveys a great deal in few Words, engages your Attention, warms your Imagination, and excites your Laughter. Of which Rank were *Xenophon*, *Plutarch*, *Macrobius*, &c. among the Ancients; and Sir *Roger Shakespeare*, *Ned Dry*, *Tom Tickle*, *Peter Point*, &c. among the Moderns.

When the *Nepbali* of *Aristophanes*, a Satyr upon *Socrates*, was asking, his Friends desired him to retire out of View; No, says *Socrates*, I will stand up in full View, that every one may enjoy me as a Feast.

*Brasidas*, the brave *Lacedæmonian* General, caught a Mouse that bit him, by which Means it made its Escape. O *Jupiter*! Laid he, what Creature is so contemptible, but may obtain its Liberty by contending for it?

*Augustus*, while he was encamped with his Army, near *Mantua*, was disturbed three Nights successively by the hooting of a Screech Owl, Proclamation was made to the Soldiers, that whoever caught the Offender, so that he might be brought to Justice, should have an ample Reward for his Pains. Every One was loyally engaged in the Pursuit of this Bird. At last, one more vigilant than the rest, found him in a hollow Tree, and brought him in Triumph to the Emperor, who saw him with the greatest Pleasure; but gave the Soldier a Sum of Money so far below his Expectation, that he let the Owl fly away that Instant: so true a Sense of Liberty ran thro' the lowest of the Romans.

The tedious *Story-Teller* is one, who conveys little or nothing in a Multitude of Words; for which many among the Moderns are famous, and particularly the *French*.

The following is a Fragment of a long Story, as told by a *Story-Teller* of our own Country, containing a Hundred and Twenty Nine Words, which might have been said in these Ten, namely, *Nine Years ago I was to preach for a Friend*.

"I remember once, I think it was about Seven Years ago—No, I lie, it was about Nine Years ago, for it was when my Wife was lying in of *Nanny*; I remember particularly the *Midwife* would have had me stay to keep her Company, as it was the heaviest Day of Storm and Rain that I ever saw before or since, but because I engaged to preach for a very worthy Friend of mine, who lived about Twenty Miles off, and this being *Saturday*, I could not defer it till the next Morning, though I had an excellent Nag, which could have carried me there in three Hours; I bought him of a Neighbour, one Mr. *Sproyson*, yet because,—I would not put my Friend in a Fright, &c." Thus far he proceeded in one Minute.—The Story lasted an Hour. So that upon a fair Computation, 129 into 60 equal 7740; minus 10, (the Words the whole Story might have been told in) equal 7730 Words, used more than there was occasion for; the true Solution of the Problem. Q. E. I.

If a right Application be made of this Hint, it would be of admirable Use in the Dispatch of public Business, as well as private Conversation, and even in the writing of Books; on which Account the Reader is desired to excuse our *Plagiarism*, whenever he shall detect us borrowing

borrowing like most GREAT AUTHORS to serve the present Purpose. And as we read none but the best Authors, their Pardon is expected.

The *Marvellous* is he who is fond of telling such Things as no Man who has the least Use of his Reason can believe. This Humour prevails very much among Travellers and the Vain-glorious.

Dr. *Burnet*, whose History is of the same Authority with his Travels, gives us large Accounts of the *Marvellous*. And the grave *Ysbrand Ides*, in his Travels, thro' *Muscovy* to *China*, also assures us of many strange Things relating to Elephants which he saw: some howing like Cows, some yelling like Tygers, some sharming like the Sound of a Trumpet, and some singing like Canary-Birds!

A certain Gentleman in *Ireland*, (remarkably fond of the *Marvellous*) among his inexhaustible Fund of these Kind of *Rarities*, affirms he has got a *Carp*, in his Pond, which, by itself, has, for these Twenty Years past, supplied him with a good Dish of Fish for his Friends, when any of them came to dine, or sup with him. The Manner of it is thus. The *Cook-Maid* goes with a large *Kitchen-Knife* which has a *Whistle* in its Handle, which she no sooner blows, but the *Carp* comes to the Sluice, turns up his Belly till she cuts out as much as she has Occasion for and then scuds away. The *Chafin* fills up in a Day or Two, and the *Carp* grows as sound as a Roach, and ready for the Knife again. Now, if he and his *Cook-Maid* took the most solemn Oath to the Truth of this, or the most sanctified *Quaker* should say *Yea* to it, which is made equal to any *Prelate's* Oath, I should give them as much Credit as the *Colonel*, who said he was at the Battle of *Landen*, where his Majesty King *William*, of glorious Memory, lost the Day: and this *Colonel* being in the utmost Confusion, fled among the Rest, and swore he had galloped above Two Miles after his Horse's Head was shot off by a Cannon Ball; which he should not have missed if the poor Creature had not stopt at a River's Side to drink.

It might be worth while to spend an Evening with Half a Dozen Gentlemen of this *uncommon Genius*, to see how they might improve upon one another; whereby an Opportunity might be also had of observing how far the *Marvellous* might be carried, or whether it had any Limits at all.

The *Insipid* Story-Teller, may not improperly be called the *Soporific*, who goes plodding on in a heavy dull Relation of insignificant Facts. You shall have an Account from such an one, of every minute Circumstance which happened in the Company where he has been; what he did, and what they did, what they said, and what he said, with a Million of *trite* Phrases, with *an*, and *so*, beginning every Sentence; and, to make short of a long Story, and, as I was saying so it happened, with numberless other *Expletives* of equal Signification. On which it may be remarked, it is a dreadful Thing when Men have neither the Talent of speaking, nor yet the Discretion to hold their Tongue; and that of all People, such as are the least qualified are commonly the most earnest in this Way of Conversation.

The *Delightful* Story-Teller, is one who adds not a Word too much, or says too little; who can in an easy Manner to himself

He has a great deal of Pleasure to others in his Relations; and desires rather to divert and instruct than be applauded. He shews a good Understanding, and a delicate Turn of *Wit*, in every Thing that comes from him; who can entertain his Company better with the History of a Child, and its *Hobby Horse*, than one of the *Soporifics* can with his account of *Alexander* and *Bucephalus*. The Latter is not unlike a Reader, or Preacher, who makes an ingenious Performance detestable by drawing it thro' his Mouth. The delightful Story-Teller can't be described by any Words so well as his own.

Those grave Fellows, who sift every Thing with the utmost Nicety, and find the Malignity of a *Lie*, in a Piece of Humour, pushed a little beyond exact Truth, are not to be esteemed for their Penetration more than those who keep a steady Countenance, when a pleasant Thing is said, and ask, *well, and what then?* Men of Wit and Parts should treat one another with Benevolence and Respect, since it is laid down as a *Maxim*, if you seem to have a good Opinion of another Man's *Wit*, he will allow you to have *Judgment*.

Sir Roger *Shakeside*, who is allowed to tell a Story with as good Grace as any Man, will often sit attentive on this Occasion; and tho' he is known to speak well, he will readily join the general Laugh, in support of the Merit or Applause of a *Rival*: well observing, that a Man, who talks of any Thing he is distinguished for, has very little to get; but a great deal to lose, if taken from him. And therefore 'tis the prudent Part a Man should act, who has gained Superiority in any Branch of Knowledge. And 'tis allowed there is not a handsomer Thing said of Mr. *Cowley*, in his whole Life, than "none but his intimate Friends ever discovered he was a great *Poet* by his Discourse."

When Sir Roger tells a Story, he always personates the Founder; if a *Statesman*, he looks grave and wise; if a *Divine*, he puts on an air of Sanctity; if a *Beau*, he plays the Coxcomb; and if a *Coxcomb*, he plays the Fool: suiting his Gestures to the People he is about to represent.—He never is tedious, nor administers Opiates for Cordials.

THEREFORE, for the Time to come, be it hereby *Enacted*, that if any Person shall presume to exceed *Six Minutes* in a Story, to *bum* and *use* Hyphens between his Words, make Digressions, and engage the Company to hear another Story, before he has done with the first; or speaks fifty Words more than are necessary, or stammers, or hesitates in his Speech, that then it shall and may be lawful for any one, or more, of the said Company, or the *whole* Company together, to pull at his, her's, or their Watches, and to make use of broad Hints, or *quendos*, for him, the said Story-Teller, to break off, tho' abruptly; or otherwise it shall, or may be lawful, for any of the said Company to thrust a Handkerchief into the said Story-Teller's Mouth, for his first *fault*; and for the second, he shall be turned out of Company.

NUTCRACKER.

### Of SATYR.

THE chief Satyrists among the Ancients are *Horace*, *Juvenal*, and *Persius*; among the Moderns, *Regnier* and *Boileau* in French; and *Dryden*,

# 50 The GENTLEMAN and LADY'S

*Dryden, Oldham, Rochester, Buckingham, Pope, Swift, Young, &c.*  
among the *English*.

Satyr should excite our *Laughter* or *Abhorrence* at whatever deserves them; by exposing *Vice* and *Folly*, in order for *Reformation*. And should consist of *Invective*, *Ridicule*, and *Raillery*; be lively, entertaining, and moral, to please and convince while it exposes to Shame.

The *Essential* Quality of a Satyr is *Good-humour*, for commanding the *Attention*, and producing *Reformation*.

"Rage you must bide, and Prejudice lay down,

"A Satyr's Smile is sharper than a Frown.

"The feather'd Shaft adds Swiftness to the Dart,

"So softest Words send Satyr to the Heart.

It is *Good-nature* or *Good-humour*, commands that *Disdain* of all *Baseness*, *Vice* and *Folly*, when the *Writer* expresses himself with *Smartness* against the *Errors* of *Men* without *Bitterness* to their *Persons*.

*Good-humour* keeps the *Mind* in *Equanimity*, and from throwing a *Man* unseasonably out of his *Character* on an *Offence* given. To appear diverted at a designed *Offence* completely parries it, and turns it on the *Offender*. As when *Virgil* expressed himself. He that did not hate *Bavius* might love *Mevius*, it was a *Delicacy* of *Scorn* and *Derision*, spoken in perfect good *Humour*, without any *Mixture* of *Anger* at their *Absurdities*, being far worse, in *Effect*, than if he had called them directly a *Couple* of *Blockheads*.

The best *Good Man*, with the worst natured *Muse*, is the *Character* of the late *Duke of Buckingham*, as famous for his *Humanity*, as for his *Wit*. Satyr is divided into

*Narrative*, being a simple *Narration*, or *Recital* of *Abuses*, in the *Satyr*'s own *Person*,—such as the first of *Juvenal*.

*Dramatic*, being that kind wherein several *Person's* *Discourse* together, whether they be nameless, as in the first of *Perfius*; or have *Names*, as of *Catius*, and *Damaspippus*.

*Mixed*, being compounded of both the *Former*, as that fine one of *Horace*, *Ibam forte via sacra*.

*Grave* and *animated*, inveighing with *Warmth* and *Earnestness* against *Corruption* and *Vice* in every *Shape*; as those of *Juvenal* and *Perfius*.

*Sportive* and *Lighter*, playing with *Mens Vices* and *Follies*; but taking every *Opportunity* of making them feel the *Satyr*: Such as those of *Horace*, hence said to be *Sermoni propria*.

The *Grave* brandishes the naked *Sword*; the *Sportive* presents a *Thirrus*, like that of the antient *Satyrs*, surrounded with *Vine Leaves* which stabs unawares! The *Heat* of the *Former* sometimes degenerates into *Fury* and *Indignation*; as the *Calmness* of the *Latter* sometimes sinks to mere *Raillery*. Between these two *Extremes* are a great *Number* of *Species* and *Degrees*.

The *Former*, especially dictated by *Passion*, is much the easier; in the *Latter*, Nothing is more difficult than to make *People* of *Talent* laugh; even at the *Expence* of others. The attaining to which is by the *Fruit* of *Genius*, and natural *Talents*; rather than by *Rules*. *Vanity*, *Self-Love* and *Resentment*, are *Masters* sufficient to teach the Writer, not without *Wit* and *Judgment*. For thus *Juvenal*,

*Si Natura negat, facit Indignatio versum.*



The two *Leaders* of these two Sorts of Satyrs lived in Times very different. *Horace* was intimate with *Augustus Cæsar*, a Prince of great Goodness and Humanity, whose Court was formed by his Example. And the Faults that *Poet* had to fall upon were little Inconsistencies in Behaviour, false Pretensions to Politeness, or impertinent Affectations of what some Men were unqualified for.

*Juvenal* lived under *Domitian*, in whose Reign every Thing great and noble was banished the Habitations of the Men of Power. He therefore attacks Vice as it passes in *Triumph*! and not, as *Horace* did, breaking into Conversation. The Fall of Empire, Contempt of Glory, and universal Degeneracy of Manners are before *Juvenal's* Eyes in all his Writings. To have talked like *Juvenal* in the Days of *Augustus*, or like *Horace* in those of *Domitian*, had been equal Madness. Morality and Virtue are every where recommended in *Horace* from the Harmony, Propriety, and Convenience of pursuing them, as became a Man living in a polite Court.

But Vice and Corruption are attacked by *Juvenal* in a Style denoting as if he feared that he should not be heard, unless he calls to them in their own Language, with a barefaced Mention of the Villanies and Abominations of his Contemporaries. See *Tat. V. IV. No. 242, P. 219* following.

The *Italians* divide Satyr into serious and jocose, which latter is our *Burlesque*.

*Personal Satyr* exposes particular Characters, affecting Men's Reputation, on which depends their Interest; and is never justifiable, but as Pillories and Corporal Punishments are to barefaced Villanies and Cheats; and to Offences deserving public Shame. HONESTUS.

A TRADITIONAL ACCOUNT of the miraculous Deliverance of Lord SHORELAND at the Isle of Sheepy in Kent; and of the remarkable PROPHECY of an OLD-WOMAN, who had formerly been his Servant, foretelling his Lordship's Death.

THE Lord *Shoreland*, we are told, lived in this Island in the Reign of ELIZABETH, and happening to come over the Minister-Church-Yard here, when a Clergyman refused to bury a Corps, till he was paid his fee for reading the funeral Service; his Lordship in Heat of Passion, threw the Parson into the Grave, put the Coffin down upon him, and filled the Grave up immediately, by which Means a Clergyman of that Island was buried alive.

When a Body of the Clergy were about to apply to her Majesty for Justice on this Occasion, who at that Time lay at Anchor at the Shore; the Lord *Shoreland* instantly mounted his Horse, leaped into the Sea, and swam to the Ship, where the Queen seeing him in danger, but undauntedly swimming round, and being informed for what Reason he did it, she, in a merciful Surprise, granted him a pardon; which done he made his Obeisance, returned Thanks to her Majesty, swam back to the Island, and landed on the Shore near the Minister-Church, which is about Six Miles backwards and forwards.

To

To corroborate this Miracle there is the Representation of a Horse's Head, placed on the Top of the Spire at the Minster-Church for a *Weathercock*, which is always kept in good Repair; in which Church the Remains of Lord *Shoreland* are deposited; on whose Tomb, which is a Composition of Plaister, may likewise be seen the Representation of a Horse's Head rising out of the Waves, in Commemoration of this surprising Adventure.

The said Tradition farther adds, that when Lord *Shoreland* had landed from the *Nore*, by Means of his Horse, and was in Possession of his Pardon, for the Barbarity which he had been guilty of, an old Woman, who before had been his Servant, prophesied, "That the very Horse which had then saved his Lordship's Life, should certainly be the Cause of his Death." To prevent the fulfilling of this Prophecy, his Lordship drew out his Rapier, and killed him upon the Spot, leaving his Carcase upon the Sands, whither he sometimes used to go to look on the Skeleton of this noble Creature; and one Day as he was viewing the Head and shewing it to his Friends, he struck the Toe of his Shoe so hard against it, that a sharp Splinter of the Bone entering his Shoe, wounded him in such a Manner, as brought on a Mortification, of which he died.

Some affirm, that this Lord *Shoreland* was Contemporary with Lord *Cheyne* and a Sharer of his Fortune; and that he became his sole Heir and Executor, while others say he was only Lord of the Manor of *Shoreland*, since called the Isle of *Sheepy*, from the Number of Sheep feeding thereon; and that after Lord *Cheyne's* Death, he became chief Owner thereof: yet by comparing Lord *Shoreland's* Monument with Lord *Cheyne's* Tomb-Stone, the former bears the strongest Marks of Antiquity.

'Tis farther asserted by the Inhabitants of this Island, that the Lord *Cheyne* had Horses trained to the Water, and kept in Stables underground for their better travelling in the Night, and swimming out and into the Island, with their Riders, on sudden and secret Expeditions; the Ruins of which Stables are now to be seen in the Parish of *East-Church*.

Another Account says, that after the Dissolution of Monasteries (which was in 32 Hen. VIII.) when the Fryars and Priests were travelling out of the Kingdom, by Way of *Sittingburne*, *Olpringe*, *Bleynewood*, &c. to *Dover* for *France*, with the Wealth they had acquired by their religious Imposture, the Lord *Cheyne's* Party, on Horseback, made Expeditions against them in the Night, and distributed the Pope's Treasure for the Use of English Protestants.

The Lord of *Shoreland*, supposed to be at the Head of Lord *Cheyne's* Party, and a bold Man, probably became his Favourite and Heir through that Occasion.

Lord *Cheyne* was born the 17th of *Edward IV.* (Anno 1477) and died in *December*, Anno 1559; he was Knight of the most Noble Order of the Garter, *Warden* of the Cinque Ports, *Treasurer* of the Household to King *Henry VIII.* *Edward VI.* *Queen Mary*, and *Queen Elizabeth*, and a Member in each of their Privy Councils.—As the Latin Inscription of his Tomb-stone, in the Middle of the Minister Chancel, sets forth, which is situated between what is called the Spanish Ambassador's Tomb there, on the North Side of the North Chancel.

Chancel, and Lord Shoreland's Tomb, on the South Side of the South Chancel.

Lord Cbeyne was also Constable of *Queenborough*, an Office of some Dignity.

His *Lordship* being a Promoter of the Protestant Religion, and an avowed Enemy to the *Pope* and his Adherents, tramples upon the *Pope's Effigies*, lying at his Feet on his Tomb-stone; and the Lord *Shoreland* has the *Pope* lying at his Feet also: His own Head is represented leaning on his left Hand, with his Sword by his Side, spurs on, and lightly accoutred,—but without either *Heraldry* or *Inscription* upon his Tomb. His Horse's Head, (about which the Miracle is told) is placed to the right of him, at a Distance, between his Feet, and the Wall.

UPNORENSIS.

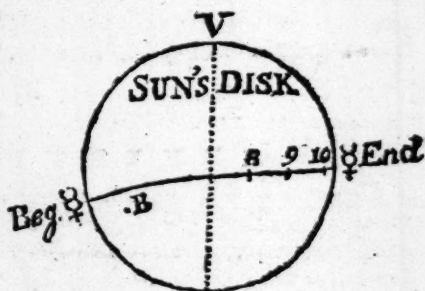
MERCURY's Transit over the Sun, May 6, 1753, as observed by Mr. *W. Sutton*, of *King's Newnham*.

THE central Egrefs, at 10 h. 6 m. in the Morning, apparent Time. The visible Path of Mercury over the Sun appeared as delineated, from East to West, being retrograde.

The Distance of Mercury from the Sun's Centre, at the Middle, could not be observed by Reason of large Clouds interposing.

The Macula, or Spot, at B, appeared about the same Size with Mercury's Body.

The Diameter of Mercury to that of the Sun, seemed to be about 1 to 100, as in the Figure.



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Toby Strutter }

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ECLIPSES



## CLIPSES, 1754, by Mr. Thomas Corwper, of Wellingborough.

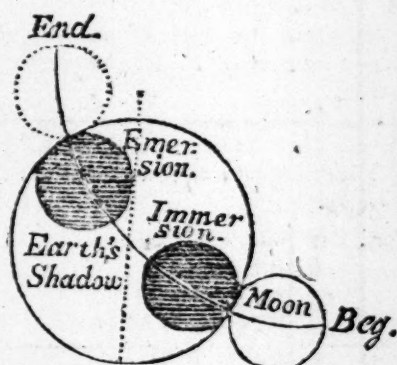
HERE will be Six Eclipses this Year; four of the Sun, and two of the Moon; but all invisible to the Inhabitants of Great-Britain.

Of the Sun, Saturday, March 23, between 10 and 11 at Night.

Of the Moon, on Sunday the 7th of April, Ten Minutes after in the Morning.

This Eclipse is nearly central, and will be visible to the greatest Part of America. A Calculation and Sketch thereof for For.-Royal, in Jamaica follows.

|                  | H. | M. |                                     |
|------------------|----|----|-------------------------------------|
| Beginning -      | 1  | 14 | } Morning at Jamaica apparent Time. |
| Tot. Dark.       | 2  | 11 |                                     |
| Middle - -       | 2  | 59 |                                     |
| Tot. Dark.       | 3  | 47 |                                     |
| End - - -        | 4  | 44 |                                     |
| Digits 21°. 47'. |    |    |                                     |

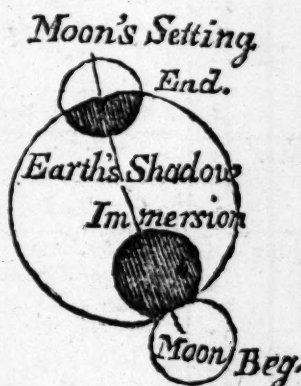


Is a small Eclipse of the Sun, on Monday, the 22d of April, between 10 and 11 in the Afternoon.

A small Eclipse of the Sun, on Monday, September 16, between 4 and 5 in the Afternoon. This and the Former of the Sun, by Reason of the Moon's great South Latitude, will be only visible in the unknown Southern Parts of this Earth.

Is a total Eclipse of the Moon, on Tuesday, the 1st of October at 10 in the Forenoon; consequently invisible to us. But the Time and Manner of appearance at Charles-Town, South Carolina, will be as follows.

|                       | H. | M. |                                                                              |
|-----------------------|----|----|------------------------------------------------------------------------------|
| gin - - -             | 2  | 54 | } Morning<br>at Charles-<br>Town,<br>in South<br>Carolina,<br>apparent time. |
| merſion - -           | 4  | 0  |                                                                              |
| iddle - - -           | 4  | 50 |                                                                              |
| merſion - -           | 5  | 40 |                                                                              |
| oon ſets - -          | 6  | 11 |                                                                              |
| en Dig. ecl. 6° 2'    | 6  | 46 |                                                                              |
| d - - - -             | 6  | 46 |                                                                              |
| Digits in all 20° 44' |    |    |                                                                              |



The Middle the Moon is Vertical to the Part of the pacific Ocean, which lies in Lat. 3° 15' North, and Longit. 151° 15' West from London.

Is of the Sun, on Wednesday, Oct. 16, between 1 and 2 in the Morning.

ASTRONOMICAL

## ASTRONOMICAL REMARKS.

ON the 8th of September, between 10 and 11 at Night, the 29th November, about 6 in the Evening, and the 27th of December, at 4 in the Morning 1754, the Moon makes very near *Appulses* to *Ald.baran*; but happens no Occultation of that *Star* till 1755.

The PLANET VENUS is a *Morning Star* till the End of March, she becomes an *Evening Star*, and so continues to the Year's End.

JUPITER is seen both Night and Morning for the first Four Months of the Year, and continues an *Evening Star* till the 21st of August, and thence he is a *Morning Star* to the Conclusion of the Year.

MARS is an *Evening Star* till the 29th of October and a *Morning Star* the Rest of the Year.

Towards the End of March, after Sunset, and at Christmas after Sun-  
MERCURY may be seen with the *naked Eye*, for several Days, if the Air be serene.

A short Account of the HOLIDAYS kept at the PUBLIC OFFICES for the Year 1754; as inserted in the *Memorandum Books*, and our *Ladies Calendar*.

|         |                           |          |                      |
|---------|---------------------------|----------|----------------------|
| Jan. 1  | Circumcision              | July 15  | St. Swithin          |
| 6       | Epiphany                  | 25       | St. James            |
| 25      | St. Paul                  |          |                      |
| 30      | K. Cha. I. Mart.          | Aug. 1   | Lammas Day           |
| Feb. 2  | Purif. V. Mary            | 11       | Prise Augusta born   |
| 14      | Valentine                 | 24       | St. Bartholomew      |
| 24      | St. Matthias              |          |                      |
| 26      | Shrove Tuesday            | Sept. 12 | London burnt 1666.   |
| 27      | Ash Wednesday             | 14       | Holy Rood            |
| Mar. 1  | St. David                 | 29       | K. Geo. I. landed N. |
| 5       | Prise Hesse born          | 21       | St. Matthew          |
| 25      | Lady Day. Pr. Edward born | 29       | St. Michael          |
| Apr. 12 | Good Friday               |          |                      |
| 15      | Easter Monday             | Oct. 18  | St. Luke             |
| 16      | — Tuesday                 | 22       | K. Geo. II. crowned  |
| 17      | — Wednesday               | 28       | St. Simon and Jude   |
| 23      | St. George                |          |                      |
| 25      | St. Mark                  | Nov. 1   | All Saints           |
| 26      | D. Cumberl. born          | 2        | All Souls. Prs. On   |
| May 1   | St. Philip and Jac.       | 5        | Powder Plot          |
| 23      | Ascension Day             | 9        | Lord Mayor's Day     |
| 29      | K. Ch. II. Rest.          | 10       | K. Geo. II. Birth-D  |
| June 3  | Whit Monday               |          | but born 9th, 1683,  |
| 4       | Prince of Wales born.     | 27       | Qu. Eliz. Accel. N.  |
| 10      | P. Am. and Car. born.     | 30       | S. And. Prs. Dow. W  |
| 11      | S. Bar. In. K. G. II.     |          |                      |
| 24      | St. John Bap.             | Dec. 21  | St. Thomas           |
| 26      | K. Geo. II. pro.          | 25       | Christmas Day        |
| 29      | St. Pet. and Paul         | 26       | St. Stephen          |
|         |                           | 27       | St. John             |
|         |                           | 28       | Innocents            |

N. B. We shall be more copious next Year, by adding all the Feasts, and Terms and Returns, Remarkable Days, &c.





enters  $\times$  rd. 3h. 52m. 59f. E. T. Eq.—14m. 23f. th. 18d  
3h. 38m. 36f. Ap. T.  $\odot$  mea. Anom. 7f. 19. $^{\circ}$  56'. 52". 51'''.



MARCH. ROYAL DIARY, or EPHEMERIS. 59 1754. N. 3

Q.2<sup>d</sup>5<sup>h</sup>37<sup>m</sup>.FM.8<sup>d</sup>10<sup>h</sup>.41<sup>n</sup>.LQ.15<sup>d</sup>.6<sup>h</sup>.58<sup>a</sup>.NM.23<sup>d</sup>10<sup>h</sup>11<sup>n</sup>.FQ.31<sup>d</sup>5<sup>h</sup>8<sup>a</sup>.

| D. | Q in X                  | Decl.       | So.         | h D.                | R.S.                 | S.D.                 | Q D X               | Q D X     | (in L) | Lat. | S. |
|----|-------------------------|-------------|-------------|---------------------|----------------------|----------------------|---------------------|-----------|--------|------|----|
| 1  | 10 <sup>11</sup> 53' 8" | 7° 29' 51"  | 14° 50'     | 9° 38'              | 9° 6' 8"             | 3° 19'               | 9° 0'               | 1° 59'    | 3° 35' |      |    |
| 2  | 11 <sup>18</sup> 53' 13 | 7° 6' 59"   | 14° 55'     | 9 <sup>14</sup> 32' | 9 <sup>14</sup> 37'  | 4° 34'               | 10° 54'             | 15° 0'    | 4° 21' |      |    |
| 3  | 12 <sup>53</sup> 53' 16 | 6° 44' 2"   | 14° 49'     | 9° 27'              | 10° 7'               | 5° 49'               | 12° 49'             | 28° 24'   | 4° 53' |      |    |
| 4  | 13 <sup>Δ</sup> 53' 17  | 6° 30' 59"  | 15° 8' 4"   | 9° 21'              | 10° 36'              | 7 <sup>45</sup> 4'   | 14° 44'             | 12° 51'   | 5° 10' |      |    |
| 5  | 14 <sup>3</sup> 53' 16  | 5° 57' 49"  | 15° 5' 8"   | 9° 16'              | 11° 6'               | 8° 19'               | 16° 39'             | 26° 28'   | 5° 8'  |      |    |
| 6  | 15° 53' 13              | 5° 34' 33"  | 15° 13'     | 9 <sup>21</sup> 11' | 11° 36'              | 9° 34'               | 18° 35'             | 11° 9'    | 4° 46' |      |    |
| 7  | 16° 53' 9               | 5° 11' 14"  | 15° 18'     | 9° 6'               | 12° 6'               | 10° 48'              | 20° 31'             | 26° 10'   | 4° 5'  |      |    |
| 8  | 17 <sup>8</sup> 53' 3   | 4° 47' 51"  | 15° Δ 22'   | 9° 1'               | 12° 37'              | 12° 8' 3"            | 22° 28'             | 11° 27'   | 3° 5'  |      |    |
| 9  | 18 <sup>11</sup> 52' 54 | 4° 24' 25"  | 15° 6' 27"  | 8° 57'              | 13° 2' 7"            | 13° 18'              | 24° 26'             | 26° 41'   | 1° 53' |      |    |
| 10 | 19° 52' 42              | 4° 0' 55"   | 15° □ 31'   | 8 <sup>19</sup> 52' | 13° Δ 30'            | 14° 33'              | 26° 24'             | 11° Δ 45' | 0° 33' |      |    |
| 11 | 20° 52' 29              | 3° 37' 24"  | 15° 6' 36"  | 8° □ 47'            | 14° 3' 9"            | 15° 47'              | 28° 23'             | 26° 34'   | ON 47' |      |    |
| 12 | 21° Δ 52' 14            | 3° 13' 50"  | 15° * 40'   | 8 <sup>20</sup> 43' | 14° 39'              | 17° Δ 2'             | 0° V 2'             | 10m 57'   | 2° 4'  |      |    |
| 13 | 22 <sup>20</sup> 51' 58 | 2° 50' 12"  | 15° 8' 44"  | 8° 39'              | 15° 10'              | 18 <sup>12</sup> 17' | 2° Δ 20'            | 24° 51'   | 3° 10' |      |    |
| 14 | 23° 51' 40              | 2° 26' 32"  | 15° 48'     | 8° Δ 35'            | 15° 8' 41"           | 19° □ 31'            | 4 <sup>17</sup> 17' | 8° ↑ 20'  | 4° 3'  |      |    |
| 15 | 24° □ 51' 19            | 2° 2' 51"   | 15° 52'     | 8° 1' 31"           | 16 <sup>14</sup> 12' | 20° 23' 46"          | 6° 14'              | 21° 23'   | 4° 42' |      |    |
| 16 | 25° 50' 57              | 1° 39' 10"  | 15° 6' 56"  | 8° 27'              | 16° 43'              | 22° 1'               | 8° □ 9'             | 4° 5'     | 5° 6'  |      |    |
| 17 | 26° * 50' 33            | 1° 15' 28"  | 16° 23' 0"  | 8° 24'              | 17° 14'              | 23° * 15'            | 10° 9'              | 16° 32'   | 5° 15' |      |    |
| 18 | 27 <sup>22</sup> 50' 7  | 0° 51' 45"  | 16° 4'      | 8° 21'              | 17° 46'              | 24° 15' 30"          | 11° 51'             | 28° 49'   | 5° 9'  |      |    |
| 19 | 28° 49' 38              | 0° 28' 2"   | 16° 7'      | 8 <sup>19</sup> 18' | 18° Δ 17'            | 25° 44'              | 13° * 39'           | 10° 46'   | 4° 52' |      |    |
| 20 | 29° 49' 6               | 0° 4' 21"   | 16° 11'     | 8° 15'              | 18° 16' 45"          | 26° 59'              | 15° 7' 24"          | 22° 40'   | 4° 21' |      |    |
| 21 | V 48' 32                | N°. 19' 21" | 16° 14'     | 8° 13'              | 19° 21'              | 28° 14'              | 17° 5'              | 4° X 31'  | 3° 35' |      |    |
| 22 | I 47' 57                | 0° 43' 1"   | 16° * 17'   | 8° 10'              | 19° □ 53'            | 29° 29'              | 18° 42'             | 16° 18'   | 2° 44' |      |    |
| 23 | 2° 47' 20               | 1° 6' 39"   | 16° 20'     | 8° Δ 8'             | 20° 8' 25"           | 0° 6' 44"            | 20° 14'             | 28° 8'    | 1° 45' |      |    |
| 24 | 3 <sup>10</sup> 46' 41  | 1° 30' 16"  | 16° □ 23'   | 8 <sup>20</sup> 6'  | 20° * 58'            | 2° 6' 58"            | 21° 41'             | 10° V 0'  | 0° 41' |      |    |
| 25 | 4° 45' 59               | 1° 53' 51"  | 16° 13' 26" | 8° 4'               | 21° 23' 30"          | 3° V 13'             | 23° 6' 22"          | 21° 58'   | OS 24' |      |    |
| 26 | 5° 45' 15               | 2° 17' 23"  | 16° 29'     | 8° □ 22'            | 22° 2'               | 4° 27'               | 24° 2' 19"          | 4° 8' 6"  | 1° 30' |      |    |
| 27 | 6° 44' 30               | 2° 40' 52"  | 16° Δ 32'   | 8° 0'               | 22° 34'              | 5° 42'               | 25° 30'             | 16° 21'   | 2° 32' |      |    |
| 28 | 7° * 43' 43             | 3° 4' 18"   | 16° 34'     | 7° * 59'            | 23° 7'               | 6° * 56'             | 26° 35'             | 28° 51'   | 3° 29' |      |    |
| 29 | 8 <sup>18</sup> 42' 54  | 3° 27' 42"  | 16° 37'     | 7 <sup>17</sup> 58' | 23° 6' 39"           | 8° 16' 11"           | 27° 33'             | 11° □ 34' | 4° 16' |      |    |
| 30 | 9° 42' 3                | 3° 51' 0"   | 16° 40'     | 7° 58'              | 24° 23' 12"          | 9° 25'               | 28° * 24'           | 24° 37'   | 4° 52' |      |    |
| 31 | 10° □ 41' 10            | 4° 14' 15"  | 16° 8' 43"  | 7° 57'              | 24° 45'              | 10° □ 40'            | 29° 7' 9"           | 7° 57'    | 5° 13' |      |    |

| D.                                                       | Oris.<br>sets<br>apt. | len. D.<br>D. in. | D. br.<br>☉<br>flow. | Lat. N.<br>h<br>rises M. | Lat. N.<br>4<br>sets M. | Lat. N.<br>♂<br>sets M. | Lat. S.<br>♀<br>rises M. | Lat. S.<br>♂<br>sets A. | D. | ris<br>& sets  | South.                |
|----------------------------------------------------------|-----------------------|-------------------|----------------------|--------------------------|-------------------------|-------------------------|--------------------------|-------------------------|----|----------------|-----------------------|
| 1                                                        | 6h 3<br>5 26          | 10h 51<br>3 7     | 4 43<br>12 45        | 0° N 38<br>4h m 20       | 0° N 57<br>5h m 23      | 1° N 58<br>1h m 55      | 1° S. 21<br>6h m 33      | 1° S 51<br>6 3d         | 1  | om 15          | 5 a 24<br>7 12<br>9 7 |
| 6                                                        | 6 25<br>5 36          | 11 11<br>3 27     | 4 32<br>11 38        | 0 28<br>4 3              | 0 57<br>5 23            | 1 57<br>1 50            | 1 24<br>6 27             | 1 24<br>5 44            | 7  | 5 13<br>6 a 51 | 11 1<br>morn.         |
| 11                                                       | 6 15<br>5 46          | 11 31<br>3 47     | 4 21<br>10 19        | 0 27<br>3 46             | 0 57<br>5 4             | 1 55<br>1 44            | 1 26<br>6 20             | 1 43<br>6 23            | 11 | 9 31<br>11 56  | 1 51<br>3 41          |
| 16                                                       | 6 5<br>5 56           | 11 51<br>4 7      | 4 11<br>8 55         | 0 27<br>3 28             | 0 56<br>4 45            | 1 53<br>1 39            | 1 26<br>6 12             | 0 N 11<br>7 4           | 15 | 0 56<br>2 38   | 5 29<br>7 11          |
| 21                                                       | 5 55<br>6 6           | 12 11<br>4 27     | 4 0<br>7 25          | 0 27<br>3 11             | 0 56<br>4 26            | 1 52<br>1 35            | 1 24<br>6 3              | 1 12<br>7 40            | 21 | 4 43<br>sets.  | 10 14<br>11 39        |
| 26                                                       | 5 45<br>6 16          | 12 30<br>4 46     | 3 48<br>4 51         | 0 27<br>2 54             | 0 56<br>4 7             | 1 5<br>1 30             | 1 21<br>6 31             | 2 1<br>8 6              | 25 | 8 a 7<br>10 15 | 1 a 7<br>2 39         |
| ☉ enters ♍ 20d. 4h. 24m. 19f. E. T. Eq.—7m. 40f. th. 20d |                       |                   |                      |                          |                         |                         |                          |                         |    |                |                       |
| 4h. 16m. 39f. Ap. T. ☉ mea. An. 8f. 19°. 32'. 14". 57".  |                       |                   |                      |                          |                         |                         |                          |                         |    |                |                       |
|                                                          |                       |                   |                      |                          |                         |                         |                          |                         | 29 | morn.          | 4 19<br>31 1 6 6 8    |

APRIL. ROYAL DIARY, or EPHEMERIS. 1754. N. S.

.M. 7d. 8h. 8'.m. L.Q. 14d. 10h. 23'.m. N.M. 22d. 2h. 50'.a. F.Q. 30d. 1n. 6'.m.

| D. | ☉ in ♈      | Decl. N.    | ☿ D. ♈  | ♂ R. ♈ | ♂ D. ♈  | ♀ D. ♈   | ☿ D. ♈  | ☿ in ♈  | Lat. S. |
|----|-------------|-------------|---------|--------|---------|----------|---------|---------|---------|
| 1  | 11° 40' 14" | 4° 37' 24"  | 16° 45' | 7° 57' | 25° 17' | 11° 54'  | 29° 46' | 21° 37' | 5° 17'  |
| 2  | 12° 39' 16" | 5° 0' 29"   | 16° 48' | 7° 57' | 25° 50' | 13° 9'   | 0° 17'  | 55° 41' | 5° 1'   |
| 3  | 13° 38' 16" | 5° 23' 28"  | 16° 50' | 7° 56' | 26° 23' | 14° 423' | 0° 42'  | 20° 8'  | 4° 28'  |
| 4  | 14° 37' 14" | 5° 46' 21"  | 16° 52' | 7° 57' | 26° 56' | 15° 38'  | 0° 17'  | 59° 47' | 3° 39'  |
| 5  | 15° 36' 10" | 6° 9' 10"   | 16° 54' | 7° 57' | 27° 29' | 16° 52'  | 1° 9'   | 19° 51' | 2° 27'  |
| 6  | 16° 35' 5"  | 6° 31' 51"  | 16° 56' | 7° 57' | 28° 2'  | 18° 8'   | 1° 12'  | 4° 51'  | 1° 10'  |
| 7  | 17° 33' 57" | 6° 54' 26"  | 16° 58' | 7° 58' | 28° 35' | 19° 23'  | 1° 10'  | 19° 50' | 0° 12'  |
| 8  | 18° 32' 47" | 7° 16' 53"  | 17° *   | 7° 58' | 29° 15' | 20° 35'  | 1° 13'  | 4° 42'  | 1° 33'  |
| 9  | 19° 31' 35" | 7° 39' 13"  | 17° 20' | 7° 59' | 29° 42' | 21° 49'  | 0° 47'  | 19° 11' | 2° 46'  |
| 10 | 20° 30' 21" | 8° 1' 27"   | 17° 3'  | 8° Δ   | 0° 26'  | 23° 3'   | 0° 26'  | 3° 13'  | 3° 47'  |
| 11 | 21° 29' 5"  | 8° 23' 31"  | 17° 5'  | 8° 2'  | 0° 49'  | 24° 17'  | 0° Δ    | 16° 47' | 4° 32'  |
| 12 | 22° 27' 47" | 8° 45' 27"  | 17° 6'  | 8° 3'  | 1° 23'  | 25° 32'  | 29° 23' | 29° 58' | 5° 5'   |
| 13 | 23° 26' 27" | 9° 7' 15"   | 17° 8'  | 8° 4'  | 1° 56'  | 26° 46'  | 29° 1'  | 12° 44' | 5° 16'  |
| 14 | 24° 25' 5"  | 9° 28' 54"  | 17° 9'  | 8° 6'  | 2° 30'  | 28° 0'   | 28° 24' | 25° 12' | 5° 18'  |
| 15 | 25° 23' 41" | 9° 50' 22"  | 17° 10' | 8° 8'  | 3° 3'   | 29° 6'   | 27° 45' | 7° 23'  | 5° 2'   |
| 16 | 26° 22' 15" | 10° 11' 42" | 17° 11' | 8° 11' | 3° 37'  | 0° 28'   | 27° *   | 19° 23' | 4° 28'  |
| 17 | 27° 20' 47" | 10° 32' 52" | 17° 12' | 8° 13' | 4° 11'  | 1° 42'   | 26° 15' | 1° 8'   | 3° 50'  |
| 18 | 28° 19' 17" | 10° 53' 50" | 17° 13' | 8° 16' | 4° 45'  | 2° 57'   | 25° 40' | 12° 57' | 3° 3'   |
| 19 | 29° 17' 45" | 11° 14' 38" | 17° 14' | 8° 19' | 5° 19'  | 4° 11'   | 24° 58' | 24° 51' | 2° 1'   |
| 20 | 30° 16' 12" | 11° 35' 15" | 17° 14' | 8° 23' | 5° 52'  | 5° 25'   | 24° 16' | 6° 39'  | 0° 59'  |
| 21 | 1° 14' 37"  | 11° 55' 41" | 17° 15' | 8° 26' | 6° 26'  | 6° 39'   | 23° 36' | 18° 43' | 0° 8'   |
| 22 | 2° 13' 1"   | 12° 15' 55" | 17° 15' | 8° 29' | 7° *    | 7° 53'   | 23° 9'  | 0° 8'   | 1° 13'  |
| 23 | 3° 11' 23"  | 12° 35' 58" | 17° 16' | 8° 33' | 7° 12'  | 9° 15'   | 22° 28' | 13° 12' | 2° 17'  |
| 24 | 4° 9' 43"   | 12° 55' 48" | 17° 16' | 8° 36' | 8° 9'   | 10° 21'  | 22° 0'  | 25° 43' | 3° 15'  |
| 25 | 5° 8' 0"    | 13° 15' 25" | 17° 16' | 8° 40' | 8° 43'  | 11° 35'  | 21° 36' | 8° 27'  | 4° 1'   |
| 26 | 6° 6' 14"   | 13° 34' 49" | 17° 16' | 8° 44' | 9° 18'  | 12° 49'  | 21° 16' | 21° 28' | 4° 44'  |
| 27 | 7° 4' 27"   | 13° 53' 59" | 17° 16' | 8° 48' | 9° 52'  | 14° *    | 21° 0'  | 4° 43'  | 5° 7'   |
| 28 | 8° 2' 38"   | 14° 12' 56" | 17° 16' | 8° 53' | 10° 27' | 15° 13'  | 20° 48' | 18° 11' | 5° 13'  |
| 29 | 9° 0' 58"   | 14° 31' 39" | 17° 15' | 8° 57' | 11° 1'  | 16° 31'  | 20° 54' | 18° 57' | 5° 5'   |
| 30 | 9° 58' 56"  | 14° 50' 8"  | 17° 15' | 9° 12' | 1° 36'  | 17° 45'  | 20° 41' | 15° 56' | 4° 36'  |

| D. | ☉ in ♈    | Decl. N. | ☿ D. ♈  | ♂ R. ♈   | ♂ D. ♈    | ♀ D. ♈    | ☿ D. ♈    | ☿ in ♈    | Lat. S.          |
|----|-----------|----------|---------|----------|-----------|-----------|-----------|-----------|------------------|
| D. | sec. apt. | D. inc.  | ☉ flow. | ☿ Rife M | ♂ Sets M. | ♀ Sets M. | ☿ Sets A. | ☿ Sets A. | D. rises & sets. |
| 1  | 5h 33'    | 12° 54'  | 3h 33'  | 0° N 27' | 0° N 56'  | 1° N 48'  | 1° S 16'  | 2° N 59'  | 1 1m 56f         |
| 6  | 6 28      | 5 10     | 3m 59s  | 2h M 33  | 3h M 45   | 1h M 23   | 6h A 21   | 8h A 19   | 3 3 17           |
| 11 | 5 14      | 13 33    | 3 6     | 0 27     | 0 55      | 1 46      | 1 10      | 3 11      | 5 4 21           |
| 16 | 5 4       | 13 52    | 2 54    | 0 26     | 0 54      | 1 43      | 0 53      | 2 3       | 7 Rises Morn     |
| 21 | 4 55      | 14 12    | 2 40    | 0 26     | 0 54      | 1 41      | 0 43      | 0 28      | 9 9 a 45         |
| 26 | 4 45      | 14 30    | 2 23    | 0 26     | 0 54      | 1 39      | 0 32      | 0 S 56    | 11 11 50         |
| 31 | 4 37      | 14 46    | 2 7     | 0 26     | 0 54      | 1 37      | 0 20      | 0 S 56    | 13 0 41          |
| 36 | 4 29      | 14 6     | 1 51    | 0 26     | 0 54      | 1 35      | 0 8       | 0 S 56    | 15 2 0           |
| 41 | 4 21      | 14 18    | 1 35    | 0 26     | 0 54      | 1 33      | 0 0       | 0 S 56    | 17 2 55          |
| 46 | 4 13      | 14 30    | 1 19    | 0 26     | 0 54      | 1 31      | 0 0       | 0 S 56    | 19 3 42          |
| 51 | 4 5       | 14 42    | 1 3     | 0 26     | 0 54      | 1 29      | 0 0       | 0 S 56    | 21 4 28          |
| 56 | 3 57      | 14 54    | 0 47    | 0 26     | 0 54      | 1 27      | 0 0       | 0 S 56    | 23 5 14          |
| 61 | 3 49      | 15 6     | 0 31    | 0 26     | 0 54      | 1 25      | 0 0       | 0 S 56    | 25 6 0           |
| 66 | 3 41      | 15 18    | 0 15    | 0 26     | 0 54      | 1 23      | 0 0       | 0 S 56    | 27 6 56          |
| 71 | 3 33      | 15 30    | 0 0     | 0 26     | 0 54      | 1 21      | 0 0       | 0 S 56    | 29 7 52          |

☉ enters 8 19d. 17h. 20m. 29f. E. T. Eq. 11m. 8s. th. 19d. 17h. 21m. 37f. Ap. T. ☉ mea. An. 9s. 19°. 38'. 12". 19'''.

MAY.

## ROYAL DIARY, or EPHEMERIS.

1754 N.S.

M. 6d. 5h. 19m. a. L. Q. 14d. 3h. 23'. m. N. M. 22d. 4h. 36'. m. F. Q. 29d. 6h. 40'. m.

|    | ☉ in 8                 | Decl. N.   | h R V               | 4 D. ☉              | ♂ D. ☉              | ♀ D. ☉              | ♂ D. ☉              | ♀ D. ☉              | ☉ in 8 | Lat. S. |
|----|------------------------|------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------|---------|
| 1  | 10△57' 4"              | 15° 8' 22" | 17° 15'             | 9° 7'               | 12*10               | 18° 59'             | 20° 45'             | 0° 8'               | 3° 50' |         |
| 2  | 11 <sup>19</sup> 55 9  | 15 26 22   | 17△14               | 9 12                | 12 <sup>21</sup> 45 | 20△13               | 20 52               | 14 34               | 2 50   |         |
| 3  | 12 53 12               | 15 44 7    | 17 <sup>4</sup> 14  | 9*17                | 13 20               | 21 <sup>10</sup> 27 | 21 52               | 9 9                 | 1 38   |         |
| 4  | 13 51 13               | 16 1 34    | 17□13               | 9 <sup>17</sup> 22  | 13□54               | 22 40               | 21 <sup>8</sup> 22  | 13△50               | 0 19   |         |
| 5  | 14 49 13               | 16 18 47   | 17 <sup>6</sup> 12  | 9□27                | 14° 29              | 23 54               | 21 <sup>13</sup> 44 | 28 27               | 1 N 0  |         |
| 6  | 15 <sup>8</sup> 47 11  | 16 35 43   | 17*11               | 9 <sup>18</sup> 33  | 15△4                | 25 <sup>8</sup> 8   | 22 8                | 12m55               | 2 15   |         |
| 7  | 16 <sup>5</sup> 45 8   | 16 52 23   | 17 <sup>7</sup> 10  | 9△39                | 15 <sup>4</sup> 39  | 26 <sup>23</sup> 22 | 22 38               | 27 14               | 3 21   |         |
| 8  | 17 43 3                | 17 8 47    | 17 9                | 9 <sup>21</sup> 45  | 16 14               | 27 36               | 23△12               | 0 <sup>1</sup> 16   | 4 12   |         |
| 9  | 18 40 56               | 17 24 53   | 17 8                | 9 51                | 16 49               | 28 50               | 23 <sup>22</sup> 51 | 24 51               | 4 48   |         |
| 10 | 19△38 48               | 17 40 42   | 17 <sup>6</sup> 7   | 9 57                | 17 <sup>8</sup> 24  | 0 <sup>11</sup> 4   | 24 34               | 8 <sup>1</sup> 4    | 5 8    |         |
| 11 | 20 <sup>23</sup> 36 39 | 17 56 12   | 17 <sup>17</sup> 5  | 10 3                | 17 <sup>18</sup> 59 | 1△17                | 25□26               | 20 52               | 5 11   |         |
| 12 | 21 34 28               | 18 11 26   | 17 4                | 10 <sup>8</sup> 9   | 18 34               | 2 <sup>22</sup> 31  | 26 <sup>9</sup> 10  | 3 <sup>3</sup> 21   | 4 59   |         |
| 13 | 22□32 16               | 18 26 21   | 17 3                | 10 <sup>11</sup> 16 | 19 9                | 3 45                | 27 3                | 15 32               | 4 34   |         |
| 14 | 23 <sup>15</sup> 30 2  | 18 40 57   | 17 1                | 10 22               | 19 44               | 4□58                | 27*59               | 27 31               | 3 56   |         |
| 15 | 24 27 47               | 18 55 15   | 17*0                | 10 29               | 20△19               | 6 <sup>17</sup> 12  | 28 <sup>1</sup> 58  | 9*21                | 3 10   |         |
| 16 | 25*25 31               | 19 9 14    | 16 <sup>15</sup> 58 | 10 36               | 20 <sup>23</sup> 54 | 7 26                | 0 <sup>8</sup> 1    | 21 10               | 2 15   |         |
| 17 | 26 <sup>9</sup> 23 13  | 19 22 53   | 16 56               | 10△43               | 21 30               | 8*39                | 1 7                 | 3 <sup>3</sup> 2    | 1 15   |         |
| 18 | 27 20 54               | 19 36 13   | 16□54               | 10 <sup>16</sup> 51 | 22□5                | 9 <sup>13</sup> 53  | 2 16                | 14 58               | 0 11   |         |
| 19 | 28 18 33               | 19 49 12   | 16 <sup>4</sup> 52  | 10 58               | 22 <sup>13</sup> 40 | 11 7                | 3 <sup>6</sup> 27   | 27 4                | 0 54   |         |
| 20 | 29 16 11               | 20 1 52    | 16△50               | 11□6                | 23 15               | 12 20               | 4 <sup>14</sup> 40  | 9 <sup>8</sup> 34   | 1 58   |         |
| 21 | 1 <sup>6</sup> 13 48   | 20 14 11   | 16 <sup>13</sup> 47 | 11 <sup>3</sup> 14  | 23*50               | 13 34               | 5 55                | 22 1                | 2 58   |         |
| 22 | 1 <sup>17</sup> 11 24  | 20 26 6    | 16 45               | 11*22               | 24 <sup>3</sup> 26  | 14 <sup>6</sup> 47  | 7 13                | 4 <sup>11</sup> 53  | 3 49   |         |
| 23 | 2 8 58                 | 20 37 48   | 16 42               | 11 <sup>12</sup> 30 | 25 1                | 16 <sup>20</sup> 1  | 8 34                | 17 56               | 4 30   |         |
| 24 | 3 6 31                 | 20 49 3    | 16 40               | 11 38               | 25 26               | 17 14               | 9*59                | 1 <sup>26</sup> 23  | 4 57   |         |
| 25 | 4 4 3                  | 21 59 58   | 16 <sup>8</sup> 37  | 11 47               | 26 <sup>6</sup> 12  | 18 28               | 11 <sup>17</sup> 26 | 15 0                | 5 7    |         |
| 26 | 5*1 34                 | 21 10 32   | 16 <sup>3</sup> 34  | 11 <sup>6</sup> 55  | 26 <sup>20</sup> 48 | 19 41               | 12 56               | 28 46               | 5 0    |         |
| 27 | 5 <sup>11</sup> 59 4   | 21 20 43   | 16 31               | 12 <sup>23</sup> 3  | 27 24               | 20*55               | 14□29               | 12 <sup>2</sup> 40  | 4 34   |         |
| 28 | 6□56 32                | 21 30 32   | 16 28               | 12 27               | 59 <sup>22</sup> 15 | 8 16                | 3 4                 | 26 41               | 3 54   |         |
| 29 | 7 <sup>19</sup> 53 59  | 21 40 0    | 16△25               | 12 20               | 28 35               | 23□22               | 17△41               | 10 <sup>17</sup> 49 | 2 57   |         |
| 30 | 8 51 26                | 21 49 5    | 16 <sup>9</sup> 22  | 12 29               | 29*11               | 24 <sup>23</sup> 35 | 19 <sup>13</sup> 26 | 25 4                | 1 50   |         |
| 31 | 9△48 52                | 21 57 47   | 16□19               | 12*38               | 29 <sup>7</sup> 46  | 25 49               | 21 2                | 2 <sup>2</sup> 22   | 0 36   |         |

| ☉                                                                                                | len. D.            | D. br.            | Lat. N.            | Lat. N.            | Lat. N.            | Lat. S.           | Lat. S.            | D.                    | rise   | D                 |
|--------------------------------------------------------------------------------------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-----------------------|--------|-------------------|
| sets                                                                                             | D. in.             | ☉                 | h                  | 4                  | ♂                  | ♀                 | ♂                  | & sets.               | South. |                   |
| apt.                                                                                             | fact.              | rises M.          | sets M.            | sets M.            | sets A.            | rises M.          |                    |                       |        |                   |
| 1 4 <sup>h</sup> 37                                                                              | 14 <sup>h</sup> 47 | 2 <sup>h</sup> 6' | 0°N26              | 0°N53              | 1°N37              | 0°S20             | 2°S3'              | 3 2 56                | 9 34   | 7 <sup>a</sup> 47 |
| 7 24                                                                                             | 7 3                | 3' 8"             | 0 <sup>h</sup> m44 | 1 <sup>h</sup> m58 | 0 <sup>h</sup> m42 | 8 <sup>h</sup> A5 | 4 <sup>h</sup> m14 | 5 3 55                | 11 22  |                   |
| 6 4 28                                                                                           | 15 5               | 1 50              | 0 25               | 0 53               | 1 35               | 0 9               | 2 50               | 7 8 <sup>a</sup> 38ri | om 19  |                   |
| 7 33                                                                                             | 7 21               | 3 40              | 0 25               | 1 40               | 0 32               | 8 21              | 4 3                | 9 10 35               | 2 12   |                   |
| 11 4 20                                                                                          | 15 21              | 1 28              | 0 25               | 0 52               | 1 34               | 0 N 3             | 3 2                | 11 12 0               | 3 57   |                   |
| 7 41                                                                                             | 7 37               | 3 58              | 0 5                | 1 21               | 0 22               | 8 36              | 3 50               | 13 om 34              | 5 35   |                   |
| 16 4 12                                                                                          | 15 36              | 1 4               | 0 25               | 0 52               | 1 32               | 0 15              | 3 19               | 15 1 27               | 7 2    |                   |
| 7 49                                                                                             | 7 52               | 4 2               | 11 A 42            | 1 3                | 0 13               | 8 52              | 3 40               | 17 2 12               | 8 26   |                   |
| 21 4 5                                                                                           | 15 50              | 0 24              | 0 25               | 0 52               | 1 30               | 0 27              | 3 6                | 19 2 59               | 9 52   |                   |
| 7 55                                                                                             | 8 6                | 3 51              | 11 21              | 0 45               | 11 A 59            | 9 7               | 3 32               | 21 3 59               | 11 29  |                   |
| 26 3 59                                                                                          | 16 3               | no Ni.            | 0 24               | 0 52               | 1 28               | 0 39              | 2 37               | 23 9 <sup>a</sup> 9fe | 1 3 12 |                   |
| 8 2                                                                                              | 8 19               | 3 27              | 11 0               | 0 26               | 11 48              | 9 10              | 3 21               | 25 10 49              | 3 0    |                   |
| ☉ enters 11 20d 18h 15m 21 E. T. Eq. + 3 <sup>m</sup> 52 <sup>s</sup> th. 20d 18h                |                    |                   |                    |                    |                    |                   |                    | 27 Morn.              | 4 50   |                   |
| 10 <sup>m</sup> 13 <sup>s</sup> Ap. T. ☉ mea. Anom. 10 <sup>s</sup> 20 <sup>s</sup> 13' 39" 11". |                    |                   |                    |                    |                    |                   |                    | 29 0 32               | 6 34   |                   |
|                                                                                                  |                    |                   |                    |                    |                    |                   |                    | 31 1 27               | 8 19   |                   |



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F. M. 5d. 2h. 46'. m. L. Q. 12d. 8h. 44'. n. N. M. 20d. 3h. 25'. a. F. Q. 27d. 11h. 14'. m.

| D. | ☉ in II      | Decl. N.  | h R by   | 4D. ☉     | ♂ D. ☉     | ♀ D. II    | ♂ D. 8     | D in 23 | Lat. N. |
|----|--------------|-----------|----------|-----------|------------|------------|------------|---------|---------|
| 1  | 100° 46' 18" | 22° 6' 6" | 16° 16'  | 12° 46'   | 0° 22'     | 27° 2'     | 22° 45'    | 23° 35' | 1° 53'  |
| 2  | 11 43 42     | 22 14 3   | 16* 12   | 12° 55'   | 0° 12' 58" | 28° 6' 13" | 24° 31'    | 7m 50c  | 1 53    |
| 3  | 12 41 5      | 22 21 36  | 16 14 9  | 13° 9' 4" | 1° 13' 34" | 29° 25'    | 26° 8' 20" | 21 56   | 2 58    |
| 4  | 13 38 27     | 22 28 46  | 16 6     | 13° 14'   | 2° 17' 9"  | 0° 42'     | 28° 9' 12" | 5 51    | 3 53    |
| 5  | 14 35 48     | 22 35 32  | 16 2     | 13° 23'   | 2 45       | 1 55       | 0° 11' 6"  | 19 31   | 4 31    |
| 6  | 15 33 9      | 22 41 54  | 15 59    | 13 33     | 3 21       | 3 8 9      | 2 3        | 3 30    | 4 56    |
| 7  | 16 30 30     | 22 47 53  | 15 55    | 13 42     | 3 57       | 4 22       | 4 2        | 10 6    | 5 3     |
| 8  | 17 27 50     | 22 53 28  | 15 52    | 13 52     | 4 33       | 5 35       | 6 3        | 28 42   | 4 54    |
| 9  | 18 25 8      | 22 58 39  | 15 48    | 14 8 2    | 5 12 9     | 6 48       | 8 17       | 5 11    | 4 35    |
| 10 | 19 22 25     | 23 3 26   | 15 45    | 14 5 12   | 5 45       | 8 1        | 10 9       | 23 30   | 3 58    |
| 11 | 20 19 41     | 23 7 48   | 15* 41   | 14 22     | 6 21       | 9 15       | 12 16      | 5 30    | 3 19    |
| 12 | 21 16 56     | 23 11 46  | 15 37    | 14 33     | 6 57       | 10 28      | 14 17 24   | 17 22   | 2 21    |
| 13 | 22 14 12     | 23 15 20  | 15 34    | 14 43     | 7 33       | 11 41      | 16 33      | 29 6    | 1 25    |
| 14 | 23 11 27     | 23 18 28  | 15 30    | 14 54     | 8 13 9     | 12 54      | 18* 44     | 11 0    | 0 21    |
| 15 | 24 8 43      | 23 21 11  | 15 26    | 15 8 4    | 8 45       | 14 4       | 20 19 55   | 23 0    | 0 54    |
| 16 | 25 5 58      | 23 23 35  | 15 22    | 15 14     | 9 22       | 15* 20     | 23 6       | 5 8 7   | 1 44    |
| 17 | 26 3 12      | 23 25 27  | 15 19 18 | 15 24     | 9 58       | 16 34      | 25 18      | 17 38   | 2 43    |
| 18 | 27 0 26      | 23 26 57  | 15 14    | 15 35     | 10* 34     | 17 47      | 27 30      | 0 11 23 | 3 35    |
| 19 | 27 57 38     | 23 28 4   | 15 10    | 15* 45    | 11 20      | 10 17      | 29 41      | 13 33   | 4 18    |
| 20 | 28 54 55     | 23 28 14  | 15 6     | 15 4 55   | 11 46      | 20 13      | 1 8 52     | 27 4    | 4 47    |
| 21 | 29 52 12     | 23 29 0   | 15 8 2   | 16 6      | 12 23      | 21 26      | 4 10 2     | 10 52   | 5 0     |
| 22 | 30 49 14     | 23 28 51  | 14 7 58  | 16 17     | 12 59      | 22 40      | 6 12       | 24 55   | 4 54    |
| 23 | 1 46 25      | 23 28 18  | 14 43    | 16 28     | 1 6 36     | 23 53      | 8 20       | 9 9     | 4 32    |
| 24 | 2* 43 17     | 23 27 18  | 14 40    | 16 12 38  | 14 8       | 12 25      | 6 10 26    | 23 25   | 3 52    |
| 25 | 3 40 48      | 23 25 55  | 14 45    | 16 49     | 14 48      | 26 10      | 12* 30     | 7 41    | 2 38    |
| 26 | 4 38 0       | 23 24 7   | 14 41    | 17 0      | 15 25      | 27 32      | 14 10 32   | 21 50   | 1 53    |
| 27 | 5 35 11      | 23 21 52  | 14 36    | 17* 11    | 16 11      | 28 45      | 16 32      | 6 0     | 0 41    |
| 28 | 6 32 22      | 23 19 17  | 14 32    | 17 23     | 16 13      | 38 29      | 18 30      | 20 4    | 0 N 33  |
| 29 | 7 29 33      | 23 16 16  | 14* 28   | 17 34     | 17 14      | 1 19 10    | 20 28      | 4m 5    | 1 44    |
| 30 | 8 26 44      | 23 12 49  | 14 23    | 17 46     | 17 51      | 2 23       | 22 24      | 17 57   | 2 49    |

| D. | ☉ in II  | D. br. | Lat. N. | Lat. N.  | Lat. N.   | Lat. N.   | Lat. S.  | D. rites  | D      |
|----|----------|--------|---------|----------|-----------|-----------|----------|-----------|--------|
| D. | sets     | D. in. | ☉       | h        | 4         | ♂         | ♀        | ♀         | South. |
|    | ap.      |        | fait.   | Rise A.  | sets A.   | sets A.   | sets A.  | rise M.   |        |
| 1  | h 53     | 16h 15 | all tw. | 0° N 24' | 10° N 51' | 10° N 25' | 0° N 52' | 10° S 46' | 1 11 0 |
| 18 | 8 8      | 8 31   | 2 43'   | 10h 24'  | 11h 40'   | 11h 22'   | 9h 30'   | 3hm 16'   | Morn.  |
| 6  | 3 48     | 16 24  | twi-li. | 0 24     | 0 51      | 1 23      | 1 3      | 0 56      | 1 45   |
| 8  | 12 8     | 40 1   | 54      | 10 13    | 11 40     | 11 20     | 9 36     | 3 16      | 3 24   |
| 11 | 3 45     | 16 30  | twi-li. | 0 23     | 0 51      | 1 21      | 1 12     | 0 0       | 4 54   |
| 13 | 8 15     | 8 46   | 0 57    | 10 51    | 11 20     | 11 7      | 9 41     | 3 20      | 6 19   |
| 16 | 3 43     | 16 34  | twi-li. | 0 23     | 0 51      | 1 19      | 1 20     | 0 N 50    | 7 44   |
| 18 | 8 17     | 8 50   | 0 30    | 9 20     | 11 2      | 2 10      | 52       | 9 43      | 9 15   |
| 21 | 3 42     | 16 35  | twi-li. | 0 23     | 0 50      | 1 17      | 1 27     | 1 29      | 10 57  |
| 23 | 8 17 1/2 | 8 51   | 1       | 9 8      | 10 44     | 10 39     | 9 45     | Sets.     | 0 a 48 |
| 26 | 3 43     | 16 34  | twi-li. | 0 22     | 0 50      | 1 15      | 1 32     | 1 50      | 2 39   |
| 28 | 8 17     | dec 12 | 12 8    | 46 10    | 25 10     | 25 0      | 44       | 9 A 6     | 4 26   |
| 30 |          |        |         |          |           |           |          |           | 6 9    |
|    |          |        |         |          |           |           |          |           | 7 53   |

☉ enters 2nd. 3h. 21m. 31. E. 1. Eq. — 1m. 10s. th. 21d.  
 2h. 19m. 53f. Ap. T. ☉ mea. An. 11s. 21°. 9'. 17". 31".



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1754.N.5.

5. M. 4d. 1h. 16'a. L. Q. 12d. 1h. 50'm. N. M. 1ed. 12h. 10 n. F. Q. 26d. 2h. 1

| D. | g  | in       | Deci. N.   | h R      | 4 D      | 5 D      | 6 D      | 7 D      | in     | Lat. N. |
|----|----|----------|------------|----------|----------|----------|----------|----------|--------|---------|
| 1  | 10 | 23' 54"  | 23° 8' 58" | 14° 19'  | 17° 57'  | 18° 28'  | 3° Δ 36  | 24° 19'  | 1° 38' | 3° 43'  |
| 2  | 10 | 21       | 23 4 44    | 14 14    | 18 Δ 8   | 19 Δ 5   | 4 4 46   | 26 11    | 15 11  | 4 24    |
| 3  | 11 | 18 16    | 23 0 4     | 14 10    | 18 5 20  | 19 7 42  | 6 128    | 128 33   | 4 50   | 4 50    |
| 4  | 12 | 8 15 27  | 22 55 1    | 14 6 6   | 18 32    | 20 18    | 7 14 29  | 48 11    | 39 4   | 59      |
| 5  | 13 | 12 38    | 22 49 34   | 14 5 1   | 18 44    | 20 55    | 8 27 18  | 34 24    | 32 4   | 55      |
| 6  | 14 | 9 49     | 22 43 43   | 13 57    | 18 8 56  | 21 32    | 9 8 40   | 3 15 17  | 7 36   | 4 33    |
| 7  | 15 | 7 0      | 22 37 29   | 13 52    | 19 23 8  | 22 8 0   | 10 5 52  | 4 59     | 19 27  | 4 0     |
| 8  | 16 | 4 12     | 22 30 50   | 13 48    | 19 20    | 22 6 46  | 12 5 6   | 36 1     | 33 3   | 17      |
| 9  | 17 | Δ 1 24   | 22 23 49   | 13 * 43  | 19 32    | 23 23    | 13 18 8  | 16 13    | 29 2   | 26      |
| 10 | 17 | 8 58 36  | 22 16 25   | 13 1 39  | 19 44    | 23 59    | 14 31 9  | 51 25    | 20 1   | 28      |
| 11 | 18 | 55 48    | 22 8 39    | 13 □ 34  | 19 56    | 24 36    | 15 Δ 43  | 11 Δ 24  | 7 7    | 0 27    |
| 12 | 19 | □ 53 0   | 22 0 27    | 13 13 30 | 20 Δ 8   | 25 Δ 13  | 16 19 56 | 12 10 55 | 18 57  | 0 S 35  |
| 13 | 20 | 2 50 13  | 21 51 54   | 13 26    | 20 2 20  | 25 13 50 | 18 9 14  | 24 0 8   | 57 1   | 36      |
| 14 | 21 | * 47 27  | 21 42 58   | 13 Δ 21  | 20 □ 32  | 26 27    | 19 □ 21  | 15 □ 52  | 13 10  | 2 34    |
| 15 | 22 | 18 44 42 | 21 33 40   | 13 0 17  | 20 14 44 | 27 □ 4   | 20 13 34 | 17 6 18  | 25 40  | 3 27    |
| 16 | 23 | 41 57    | 21 24 0    | 13 13    | 20 * 56  | 27 3 42  | 21 46 18 | * 41 8   | 11 36  | 4 11    |
| 17 | 24 | 39 12    | 21 18 59   | 13 8     | 21 23 8  | 28 * 19  | 22 * 59  | 20 21 2  | 21 45  | 4 42    |
| 18 | 25 | 36 28    | 21 3 35    | 13 8 4   | 21 21    | 28 12 56 | 24 2 11  | 21 21    | 5 33   | 4 59    |
| 19 | 26 | 6 33 44  | 20 52 50   | 13 13 0  | 21 33    | 29 33    | 25 23 22 | 32 19    | 40 4   | 58      |
| 20 | 27 | 13 1 1   | 20 41 44   | 12 55    | 21 46    | cm 1     | 26 35 23 | 52 4     | 8 4    | 37      |
| 21 | 28 | 28 18    | 20 30 17   | 12 51    | 21 6 58  | 0 6 48   | 27 6 48  | 25 6 4   | 18 48  | 3 59    |
| 22 | 29 | 25 36    | 20 18 30   | 12 Δ 47  | 22 5 10  | 1 21 25  | 29 16 0  | 26 11 13 | 3 25   | 3 4     |
| 23 | Ω  | * 22 55  | 20 6 22    | 12 15 43 | 22 23    | 2 2      | cm 12    | 27 21    | 18 2   | 1 58    |
| 24 | 1  | 22 20 15 | 19 53 54   | 12 □ 39  | 22 35    | 2 40     | 1 24 28  | 26 2     | 30 0   | 45      |
| 25 | 2  | 17 36    | 19 41 6    | 12 17 36 | 22 * 48  | 3 17     | 2 36     | 20 * 28  | 16 49  | 0 N 30  |
| 26 | 3  | □ 14 57  | 19 27 57   | 12 * 32  | 23 10 0  | 3 * 54   | 3 * 49   | 0 23 27  | cm 52  | 1 43    |
| 27 | 4  | 4 12 19  | 19 14 30   | 12 20 28 | 22 □ 13  | 4 6 32   | 5 6 1    | 1 23     | 14 46  | 2 49    |
| 28 | 5  | Δ 9 42   | 19 0 44    | 12 24 23 | 15 26    | 5 □ 9    | 6 □ 13   | 2 □ 16   | 28 22  | 3 43    |
| 29 | 6  | 13 7 6   | 18 46 40   | 12 21 23 | Δ 38     | 5 13 47  | 7 15 25  | 3 7 6    | 11 48  | 4 25    |
| 30 | 7  | 4 31     | 18 32 15   | 12 17 23 | 22 51    | 6 Δ 24   | 8 37     | 3 Δ 53   | 25 1   | 4 52    |
| 31 | 8  | 1 56     | 18 17 33   | 12 6 13  | 24 4     | 7 22 2   | 9 Δ 49   | 4 18 35  | 8 0    | 5 3     |

[illegible]

| D.                            | © ri-<br>fets<br>apt.     | len.D.<br>D. dec           | D. br.<br>©<br>flow.         | Lat. N.<br>h<br>Sets M.         | Lat. N.<br>u<br>Sets A.          | Lat. N.<br>♂<br>fets A.         | Lat. N.<br>♀<br>Sets A.          | Lat. N.<br>♀<br>Sets A.           | D.       | rises<br>& fets. | D<br>South.  |
|-------------------------------|---------------------------|----------------------------|------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|-----------------------------------|----------|------------------|--------------|
| 1                             | 4 <sup>h</sup> 18<br>7 41 | 15 <sup>h</sup> 22<br>1 13 | 1 <sup>h</sup> 24'<br>5' 48" | 0° N 19'<br>2 <sup>h</sup> M 2' | 0° N 50'<br>8 <sup>h</sup> A 16' | 0° N 59'<br>8 <sup>h</sup> A 42 | 1° N 17'<br>8 <sup>h</sup> A 50' | 2° S. 21'<br>8 <sup>h</sup> A 16' | 3        | 2m 48fe          | 11 a 2       |
| 6                             | 4 16<br>7 33              | 15 6<br>1 29               | 1 44<br>5 22                 | 0 19<br>1 42                    | 0 51<br>7 59                     | 0 57<br>8 28                    | 1 8<br>8 40                      | 3 20<br>7 54                      | 7<br>9   | 9 2<br>50        | 2 48<br>4 13 |
| 11                            | 4 35<br>7 24              | 14 49<br>1 46              | 2 2<br>4 43                  | 0 18<br>1 21                    | 0 51<br>7 42                     | 0 55<br>8 14                    | 0 56<br>8 30                     | 4 10<br>7 31                      | 11<br>13 | 10 52<br>Morn.   | 5 53<br>7 22 |
| 16                            | 4 44<br>7 15              | 14 32<br>2 3               | 2 20<br>3 51                 | 0 17<br>1 1                     | 0 51<br>7 25                     | 0 53<br>8 1                     | 0 43<br>8 20                     | 4 38<br>7 4                       | 15<br>17 | 1 15<br>3 34     | 9 15<br>11 6 |
| 21                            | 4 53<br>7 6               | 14 13<br>2 22              | 2 35<br>2 43                 | 0 17<br>0 41                    | 0 51<br>6 ©                      | 0 50<br>7 47                    | 0 28<br>8 8                      | 4 29<br>6 © 23                    | 19<br>21 | 7 a 3 rie        | 1 a 0        |
| 26                            | 5 2<br>6 57               | 13 58<br>2 40              | 2 50<br>1 27                 | 0 16<br>0 22                    | 0 52<br>rises.                   | 0 48<br>7 33                    | 0 12<br>7 58                     | 3 33                              | 23<br>25 | 8 33<br>9 39     | 2 51<br>4 40 |
| © enters 17 <sup>h</sup> 22d. | 20h. 37m.                 | 57l.                       | E. T. Eq.                    | — 2 <sup>m</sup> .              | 16 <sup>s</sup> .                | th. 22d.                        |                                  |                                   | 27       | 11 1             | 6 30         |
| 20h. 35m. 41f.                | Ap. T. mea.               | An. 1 <sup>s</sup> .       | 22°.                         | 58.                             | 18 <sup>m</sup> .                | 44 <sup>m</sup> .               |                                  |                                   | 29       | 8 15             | 8 15         |
|                               |                           |                            |                              |                                 |                                  |                                 |                                  |                                   | 31       | 1 47             | 9 53         |
|                               |                           |                            |                              |                                 |                                  |                                 |                                  |                                   | 31       | 3 54             | 11 25        |

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| <div> <div>MBER.</div> <div>ROYAL DIARY, or EPHEMERIS. 1754. N.S.</div> </div>                                                         |           |          |          |          |          |          |         |                 |         |   |  |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|----------|----------|----------|----------|---------|-----------------|---------|---|--|
| <div> <div>4h. 51m. a. L.Q. 9d. 8h. 47'. n. N.M. 16d. 4h. 23m. a. F.Q. 23d. 9h. 26'. m.</div> </div>                                   |           |          |          |          |          |          |         |                 |         |   |  |
| in m                                                                                                                                   | Decl. N.  | h R. 12  | 4D. 12   | ♂ D. 12  | ♀ D. 12  | ♂ R. 12  | ♀ R. 12 | D in 12         | Lat. N. |   |  |
| 30 34                                                                                                                                  | 8° 16' 9" | 10 * 48  | 1° 1'    | 27° 24'  | 17° 50'  | 24° 43'  | 6° 37'  | 2° 47'          |         |   |  |
| 48 45                                                                                                                                  | 7 54 15   | 10 8 46  | 1 14     | 28 8 2   | 19 0     | 24 D. 43 | 18 29   | 1 49            |         |   |  |
| 46 58                                                                                                                                  | 7 32 12   | 10 □ 45  | 1 27     | 28 21 41 | 20 10    | 24 5     | 0 17    | 0 46            |         |   |  |
| 45 13                                                                                                                                  | 7 10 2    | 10 21 44 | 1 40     | 29 20    | 21 8 21  | 25 12    | 4       | 0 18            |         |   |  |
| 43 30                                                                                                                                  | 6 47 45   | 10 43    | 1 Δ 53   | 29 Δ 59  | 22 21 31 | 25 Δ 35  | 43 50   | 1 22            |         |   |  |
| 41 50                                                                                                                                  | 6 25 21   | 10 Δ 42  | 2 16 6   | 0 16 38  | 23 41    | 26 4 10  | 5 8 43  | 2 22            |         |   |  |
| 40 11                                                                                                                                  | 6 2 51    | 10 10 42 | 2 19     | 1 Δ 17   | 24 51    | 26 □ 53  | 17 43   | 3 18            |         |   |  |
| 38 33                                                                                                                                  | 5 40 14   | 10 41    | 2 □ 32   | 1 Δ 56   | 26 1     | 27 19 44 | 29 54   | 4 5             |         |   |  |
| 36 57                                                                                                                                  | 5 17 32   | 10 41    | 2 5 45   | 2 4 35   | 27 11    | 28 43    | 12 Π 20 | 4 42            |         |   |  |
| 35 23                                                                                                                                  | 4 54 46   | 10 40    | 2 * 58   | 3 □ 14   | 28 Δ 21  | 29 * 40  | 25 6    | 5 6             |         |   |  |
| 33 51                                                                                                                                  | 4 31 54   | 10 8 40  | 3 15 10  | 3 16 53  | 29 6 30  | 1 9 2    | 8 19    | 5 15            |         |   |  |
| 32 21                                                                                                                                  | 4 8 56    | 10 4 39  | 3 23     | 4 * 32   | 0 □ 40   | 2 12 20  | 22 0    | 5 7             |         |   |  |
| 30 53                                                                                                                                  | 3 45 53   | 10 39    | 3 36     | 5 22 12  | 1 16 49  | 3 44     | 6 10    | 4 40            |         |   |  |
| 29 26                                                                                                                                  | 3 22 49   | 10 D. 39 | 3 6 49   | 5 51     | 2 * 59   | 5 13     | 20 47   | 3 54            |         |   |  |
| 28 1                                                                                                                                   | 2 59 40   | 10 Δ 39  | 4 21 1   | 6 30     | 4 21 19  | 6 6 46   | 5 43    | 2 51            |         |   |  |
| 26 38                                                                                                                                  | 2 36 27   | 10 8 39  | 4 14     | 7 9      | 5 18     | 8 2 23   | 20 54   | 1 36            |         |   |  |
| 25 18                                                                                                                                  | 2 13 12   | 10 □ 39  | 4 27     | 7 6 48   | 6 27     | 10 3     | 6 10    | 0 13            |         |   |  |
| 24 0                                                                                                                                   | 1 49 53   | 10 7 39  | 4 * 39   | 8 3 28   | 7 37     | 11 45    | 21 17   | 1 N 9           |         |   |  |
| 22 43                                                                                                                                  | 1 26 32   | 10 * 40  | 4 22 52  | 9 7      | 8 6 46   | 13 * 29  | 6 19    | 2 26            |         |   |  |
| 21 29                                                                                                                                  | 1 3 8     | 10 7 40  | 5 4      | 9 47     | 9 5 55   | 15 17 1  | 20 38   | 3 32            |         |   |  |
| 20 17                                                                                                                                  | 0 39 44   | 10 41    | 5 □ 17   | 10 * 27  | 11 4     | 17 3     | 4 45    | 4 23            |         |   |  |
| 19 7                                                                                                                                   | 0 16 18   | 10 42    | 5 1 29   | 11 10 6  | 12 13    | 18 □ 51  | 18 24   | 4 57            |         |   |  |
| 17 59                                                                                                                                  | 0 7 10    | 10 6 43  | 5 Δ 42   | 11 □ 46  | 13 22    | 20 1 40  | 1 40    | 5 15            |         |   |  |
| 16 53                                                                                                                                  | 0 30 38   | 10 17 44 | 5 8 54   | 12 20 36 | 14 * 30  | 22 Δ 20  | 14 33   | 5 15            |         |   |  |
| 15 48                                                                                                                                  | 0 54 6    | 10 45    | 6 7      | 13 5     | 15 39    | 24 18 18 | 27 7    | 5 1             |         |   |  |
| 14 46                                                                                                                                  | 1 17 34   | 10 46    | 6 19     | 13 Δ 45  | 16 □ 47  | 26 8     | 9 24    | 4 32            |         |   |  |
| 13 46                                                                                                                                  | 1 41 2    | 10 47    | 6 31     | 14 10 25 | 17 15 55 | 27 57    | 21 32   | 3 52            |         |   |  |
| 12 48                                                                                                                                  | 2 4 30    | 10 * 48  | 6 8 43   | 15 * 5   | 19 3     | 29 46    | 5 35    | 3 1             |         |   |  |
| 11 52                                                                                                                                  | 2 27 56   | 10 14 50 | 6 6 55   | 15 14 14 | 20 Δ 11  | 1 Δ 34   | 15 32   | 2 4             |         |   |  |
| 10 58                                                                                                                                  | 2 51 22   | 10 51    | 7 8      | 16 24    | 21 10 19 | 3 8 31   | 27 18   | 1 2             |         |   |  |
|                                                                                                                                        |           |          |          |          |          |          |         |                 |         |   |  |
| len. D                                                                                                                                 | D. br.    | Lat. N.  | Lat. N.  | Lat. N.  | Lat. S.  | Lat. S.  | D.      | D rises & sets. | D       |   |  |
| D. de.                                                                                                                                 | fast.     | h        | 4        | ♂        | ♀        | ♂        |         |                 | South   |   |  |
| 13 32                                                                                                                                  | 3h 7'     | 0° N 16' | 0° N 52' | 0° N 45' | 0° S 9'  | 1° S 47' | 1       | 6 27 11.        | Morn.   |   |  |
| 5 3                                                                                                                                    | 0 20'     | 11 ha 55 | 3h M 30  | 7h A 17' | 7h A 46' | 4h M. 4' | 3       | 7 13            | 0 53    |   |  |
| 13 13                                                                                                                                  | 3 21      | 0 15     | 0 52     | 0 43     | 0 28     | 0 16     | 7       | 9 0             | 3 45    |   |  |
| 3 22                                                                                                                                   | 1 56      | 11 36    | 4 18     | 7 5      | 7 37     | 3 48     | 9       | 10 22           | 5 22    |   |  |
| 12 53                                                                                                                                  | 3 34      | 0 15     | 0 53     | 0 40     | 0 47     | 0 N 54   | 11      | Morn.           | 7 6     |   |  |
| 3 42                                                                                                                                   | 3 37      | 11 18    | 4 7      | 6 52     | 7 27     | 3 52     | 13      | 1 20            | 8 57    |   |  |
| 12 34                                                                                                                                  | 3 45      | 0 14     | 0 53     | 0 37     | 1 8      | 1 36     | 15      | 3 53            | 10 51   |   |  |
| 4 15                                                                                                                                   | 5 21      | 11 0     | 3 54     | 6 40     | 7 18     | 4 13     | 17      | 6 37 1.         | 0 45    |   |  |
| 12 14                                                                                                                                  | 3 56      | 0 14     | 0 54     | 0 35     | 1 27     | 1 51     | 19      | 7 44            | 2 37    |   |  |
| 4 21                                                                                                                                   | 7 6       | 10 42    | 3 42     | 6 26     | 7 10     | 4 42     | 21      | 9 8             | 4 31    |   |  |
| 11 54                                                                                                                                  | 4 7       | 0 13     | 0 54     | 0 32     | 1 46     | 1 46     | 23      | 10 53           | 6 19    |   |  |
| 4 41                                                                                                                                   | 8 48      | 10 24    | 3 30     | 6 13     | 7 2      | 5 19     | 25      | Morn.           | 7 59    |   |  |
|                                                                                                                                        |           |          |          |          |          |          |         |                 |         |   |  |
| <div> <div>rs 22d. 16h. 40m. 49f. E.T.Eq. + 7m. 41s. th. 22d.</div> <div>30f. Ap. T. ☉ mea Anom. 2f. 23° 21'. 47". 31'''.</div> </div> |           |          |          |          |          |          |         |                 |         |   |  |
| 29 4                                                                                                                                   | 1 11      | 0        |          |          |          |          | 29      | 4               | 1 11    | 0 |  |

## OCTOBER. ROYAL DIARY, or EPHEMERIS.

1754

FMid. 10h. 5'm. LQ. 9d. 9h. 19'm. NM 16d. 1h. 27'm. FQ 22d. 11h. 26'n. FM 31d. 11h.

| D. | ☉ in ☊      | Decl. S.   | ☿ D. ☊   | ♂ D. ☊   | ♀ D. ☊     | ♂ D. ☊     | ♀ D. ☊          |
|----|-------------|------------|----------|----------|------------|------------|-----------------|
| 1  | 8° 10' 5"   | 3° 14' 44" | 10□ 53   | 7° 20'   | 17 8' 4"   | 22° 27'    | 5° 8' 9° 6'     |
| 2  | 9 9 14      | 3 38 3     | 10 4 55  | 7 32     | 17 17 44   | 23 35      | 6 54 20 55      |
| 3  | 10 8 26     | 4 1 21     | 10 Δ 56  | 7 Δ 44   | 18 24      | 24 42      | 8 40 2 8 48     |
| 4  | 11 7 49     | 4 24 38    | 10 16 58 | 7 10 56  | 19 4       | 25 49      | 10 25 14 45     |
| 5  | 12 6 57     | 4 47 52    | 11 0     | 8 □ 8    | 19 44      | 26 8 56    | 12 9 26 52      |
| 6  | 13 Δ 6 15   | 5 11 1     | 11 2     | 8 22 20  | 20 Δ 25    | 28 ° 3     | 13 Δ 52 9 11 7  |
| 7  | 14 8 5 36   | 5 34 5     | 11 5     | 8 31     | 21 23 5    | 29 10      | 15 11 35 21 39  |
| 8  | 15 □ 4 59   | 5 57 7     | 11 8 7   | 8 * 43   | 21 45      | 0 17 17 17 | 4 26 26         |
| 9  | 16 21 4 24  | 6 20 4     | 11 12 9  | 8 ° 55   | 22 □ 25    | 1 24       | 18 □ 58 17 34   |
| 10 | 17 3 51     | 6 42 55    | 11 11    | 9 6      | 23 9 5     | 2 Δ 31     | 20 3 39 10 6    |
| 11 | 18 * 3 19   | 7 5 40     | 11 14    | 9 16     | 23 * 46    | 3 37       | 22 * 19 15 1    |
| 12 | 19 7 2 50   | 7 28 19    | 11 Δ 17  | 9 29     | 24 15 26   | 4 □ 44     | 23 14 58 29 23  |
| 13 | 20 2 23     | 7 50 54    | 11 19 19 | 9 17 41  | 25 7       | 5 9 50     | 25 37 14 11 5   |
| 14 | 21 1 58     | 8 13 21    | 11 □ 22  | 9 52     | 25 48      | 6 * 56     | 27 15 29 6      |
| 15 | 22 6 1 34   | 8 35 45    | 11 20 25 | 10 3     | 26 6 28    | 8 13       | 2 28 52 14 2 16 |
| 16 | 23 13 1 13  | 8 47 54    | 11 * 28  | 10 * 14  | 27 20 9    | 9 7        | 0 6 28 29 24    |
| 17 | 24 0 54     | 9 19 59    | 11 19 31 | 10 17 25 | 27 50      | 10 12      | 2 2 4 14 11 40  |
| 18 | 25 0 37     | 9 41 56    | 11 34    | 10 □ 36  | 28 30      | 11 6 17    | 3 11 39 29 11   |
| 19 | 26 * 0 22   | 10 3 45    | 11 37    | 10 19 47 | 29 11      | 12 22 22   | 5 14 13 28      |
| 20 | 27 23 0 9   | 10 25 25   | 11 41    | 10 58    | 29 * 52    | 13 27      | 6 * 48 27 19    |
| 21 | 27 59 58    | 10 46 55   | 11 6 44  | 11 Δ 9   | 0 5 33     | 14 31      | 8 19 22 10 41   |
| 22 | 28 □ 59 49  | 11 8 16    | 11 2 48  | 11 1 20  | 1 □ 13     | 15 35      | 9 55 23 37      |
| 23 | 29 11 59 41 | 11 29 28   | 11 51    | 11 30    | 1 15 54    | 16 * 39    | 11 □ 28 6 11    |
| 24 | 30 59 36    | 11 50 28   | 11 55    | 11 40    | 2 11 35    | 17 22 42   | 13 12 18 26     |
| 25 | 1 Δ 59 32   | 12 11 16   | 11 * 58  | 11 8 51  | 3 Δ 16     | 18 46      | 14 32 0 11 28   |
| 26 | 2 3 59 31   | 12 31 55   | 12 23 2  | 12 23 2  | 3 6 57     | 19 □ 49    | 16 Δ 3 12 23    |
| 27 | 3 59 32     | 12 52 22   | 12 6     | 12 12    | 4 39       | 20 17 52   | 17 9 34 24 12   |
| 28 | 4 59 34     | 13 12 35   | 12 □ 10  | 12 22    | 5 20       | 21 55      | 19 4 6 9 1      |
| 29 | 5 59 38     | 13 32 39   | 12 13 14 | 12 32    | 6 1        | 22 Δ 57    | 20 34 17 49     |
| 30 | 6 8 59 43   | 13 52 27   | 12 19    | 12 42    | 6 8 43     | 23 11 58   | 22 3 29 43      |
| 31 | 7 17 59 53  | 14 12 3    | 12 Δ 23  | 12 Δ 52  | 7 15 24 25 | 1 23       | 3 11 8 42       |

| D. | ☉ ri. | len.   | D. D. br. | Lat. N.  | Lat. N.  | Lat. N.  | Lat. S. | Lat. N.  | D.       | ☉ ri.   |
|----|-------|--------|-----------|----------|----------|----------|---------|----------|----------|---------|
| D. | fets  | D. de. | ☉         | h        | 24       | ♂        | ♀       | ♂        |          | & fets. |
|    | apt.  |        | fast.     | Sets A.  | Rise M.  | Sets A.  | Sets A. | Rise M.  |          |         |
| 1  | 6h 12 | 11 35  | 4 18      | 0° N 13' | 0° N 55' | 0° N 30' | 2° S 6' | 1° N 28' | 15 51    | 11 17   |
|    | 5 47  | 5 0    | 10 25     | 10 A 7'  | 3h M 18' | 6h A 1'  | 6h A 5' | 5h M 53' | 3 6 42   | 11 9    |
| 6  | 6 2   | 11 15  | 4 29      | 0 12     | 0 56     | 0 27     | 2 24    | 1 1      | 7 9 14   | 11 7    |
|    | 5 37  | 5 20   | 11 55     | 9 49     | 3 6      | 5 48     | 6 49    | 6 49     | 9 11 11  | 11 9    |
| 11 | 6 32  | 10 55  | 4 39      | 0 12     | 0 57     | 0 24     | 2 41    | 0 30     | 11 11 11 | 11 7    |
|    | 5 27  | 5 40   | 13 16     | 9 32     | 2 53     | 5 36     | 6 4     | Sets.    | 11 11 11 | 11 7    |
| 16 | 6 42  | 10 36  | 4 49      | 0 11     | 0 57     | 0 21     | 2 5     | 0 S 3    | 11 11 11 | 11 7    |
|    | 5 18  | 5 50   | 14 24     | 9 15     | 2 40     | 5 23     | 6 40    | 5 A 28   | 11 11 11 | 11 7    |
| 21 | 6 51  | 10 17  | 4 59      | 0 11     | 0 58     | 0 19     | 3 10    | 0 37     | 11 11 11 | 11 7    |
|    | 5 8   | 6 18   | 15 18     | 9 57     | 2 27     | 5 11     | 6 38    | 5 20     | 11 11 11 | 11 7    |
| 26 | 7 1   | 9 58   | 5 8       | 0 10     | 0 59     | 0 16     | 3 21    | 1 10     | 11 11 11 | 11 7    |
|    | 4 50  | 6 37   | 15 55     | 8 40     | 2 13     | 6 29     | 6 36    | 5 15     | 11 11 11 | 11 7    |

☉ enters 11 23d. oh. 7m. 49f. E. T. Eq. + 15m. 35s. th. 23d.  
 ch. 23m. 24f. Ap. T. ☉ mea. An. 3s. 23°. 14'. 13". 46".





# DECEMBER. 68 ROYAL DIARY, or EFFEMERIS. 1754 N.

L Q 7d. n. 5 m N M. 13d. 11h. 25m. F. Q 21d. 2h. 11m. F. M. 29d. 1h. 11m.

| D. | in    | 4       | Decl. S.   | h D. L.  | D. L.    | 3 D. M.  | 4 D.    | 5 D.     | 6 D.    | 7 D. | 8 D. | 9 D. | 10 D. | 11 D. | 12 D. | 13 D. | 14 D. | 15 D. | 16 D. | 17 D. | 18 D. | 19 D. | 20 D. | 21 D. | 22 D. | 23 D. | 24 D. | 25 D. | 26 D. | 27 D. | 28 D. | 29 D. | 30 D. | 31 D. |
|----|-------|---------|------------|----------|----------|----------|---------|----------|---------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1  | 9°    | 17' 39" | 21° 53' 6" | 15° 7'   | 16° 59'  | 29° 7'   | 22° 44' | 25° 21'  | 28° 0'  |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2  | 10    | 18 35   | 22 2 8     | 15 8 13  | 17 * 5   | 29 49    | 23 8 25 | 24 58    | 11 11   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 3  | 11    | 19 32   | 22 10 45   | 15 7 20  | 17 11 11 | 0 Δ 32   | 24 23 5 | 24 24    | 24 24   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 4  | 12 Δ  | 20 31   | 22 18 56   | 15 26    | 17 16    | 1 11 15  | 24 34   | 23 38    | 7 5     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 5  | 13 9  | 21 30   | 22 26 41   | 15 32    | 17 21    | 1 □ 58   | 25 22   | 22 Δ 42  | 21 28   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 6  | 14 □  | 22 30   | 22 34 0    | 15 Δ 39  | 17 6 26  | 2 19 41  | 25 58   | 21 2 36  | 5 11    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 7  | 15 17 | 23 30   | 22 40 51   | 15 18 45 | 17 21 31 | 3 1 24   | 26 Δ 33 | 20 □ 26  | 19 12   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 8  | 16    | 24 31   | 22 47 17   | 15 □ 42  | 17 36    | 4 * 7    | 27 1 37 | 19 2 10  | 3 Δ 19  |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 9  | 17 *  | 25 33   | 22 53 15   | 15 21 58 | 17 41    | 4 3 50   | 27 □ 39 | 17 * 48  | 17 31   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 10 | 18 °  | 26 30   | 22 58 47   | 16 5     | 17 46    | 5 33     | 28 17 9 | 16 ° 21  | 2 m 0   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 11 | 19    | 27 40   | 23 3 51    | 16 * 11  | 17 * 50  | 6 16     | 28 * 38 | 14 57    | 16 20   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 12 | 20    | 28 44   | 23 8 27    | 16 ° 18  | 17 2 54  | 7 6 0    | 29 22 5 | 13 6 41  | 0 1 58  |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 13 | 21 6  | 29 40   | 23 12 36   | 16 25    | 17 □ 58  | 7 11 43  | 29 30   | 12 20 34 | 15 20   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 14 | 22 11 | 30 50   | 23 16 18   | 16 31    | 18 + 1   | 8 26     | 29 53   | 11 37    | 29 24   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 15 | 23    | 32 2    | 23 19 30   | 16 6 38  | 18 Δ 5   | 9 9      | 0 15    | 10 47    | 13 1 15 |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 16 | 24    | 33 9    | 23 22 14   | 16 6 45  | 18 ° 8   | 9 53     | 0 6 35  | 10 7 26  | 4 3     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 17 | 25    | 34 17   | 23 24 33   | 16 52    | 18 12    | 10 * 36  | 0 7 55  | 9 40     | 9 46    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 18 | 26 *  | 35 25   | 23 26 21   | 16 59    | 18 15    | 11 2 20  | 1 11 9  | 9 23     | 22 24   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 19 | 27 9  | 36 33   | 23 27 43   | 17 5     | 18 18    | 12 □ 3   | 1 25    | 9 * 17   | 4 46    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 20 | 28    | 37 42   | 23 28 34   | 17 * 12  | 18 8 21  | 12 15 47 | 1 36    | D. 9 21  | 16 48   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 21 | 29 □  | 38 51   | 23 28 58   | 17 1 19  | 18 3 23  | 13 31    | 1 * 45  | 9 Δ 33   | 28 41   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 22 | 30 2  | 40 0    | 23 28 54   | 17 □ 26  | 18 26    | 14 Δ 14  | 1 6 52  | 9 23 54  | 10 9 30 |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 23 | 1 Δ   | 41 10   | 23 28 22   | 17 15 32 | 18 28    | 14 8 58  | 1 □ 56  | 10 22 22 | 19 1    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 34 | 2 21  | 42 20   | 23 27 20   | 17 39 18 | 30 15    | 42 1 19  | 59 10   | 57 4 8   | 12 2    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 35 | 3     | 43 31   | 23 25 51   | 17 Δ 46  | 18 Δ 32  | 16 26    | 1 R 59  | 11 38    | 16 16   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 26 | 4     | 44 42   | 23 23 54   | 17 3 53  | 18 4 33  | 17 8 10  | 1 Δ 56  | 12 24    | 28 34   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 27 | 5     | 45 53   | 23 21 24   | 18 0     | 18 □ 35  | 17 13 54 | 1 6 52  | 13 8 14  | 11 11   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 28 | 6     | 47 3    | 23 18 33   | 18 7     | 18 14 36 | 18 38    | 1 45    | 14 4 9   | 24 3    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 29 | 7 8   | 48 14   | 23 15 12   | 18 8 14  | 18 * 37  | 19 22    | 1 35    | 15 10    | 7 12    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 30 | 8 1   | 49 25   | 23 11 20   | 18 20 21 | 18 22 38 | 20 6     | 1 8 21  | 16 13    | 20 38   |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 31 | 9     | 50 36   | 23 7 3     | 18 28 18 | 38 20    | 50 1 19  | 5 17    | 18 4 16  | 4 16    |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

| D. | ori. len. D. | D. br.   | Lat. N. | Lat. N. | Lat. S. | Lat. S. | Lat. S.  | D. & sets. | S.          |
|----|--------------|----------|---------|---------|---------|---------|----------|------------|-------------|
| D. | fets.        | D. de.   | fast.   | h       | u       | ♂       | ♀        | ♀          |             |
| 1  | 7h 57        | 3h 6'    | 5h 54'  | 0° N 7' | 1° N 6' | 0° S 5' | 2° S 45' | 1° S 6'    | 1 5 55 ris. |
| 4  | 3 8          | 29 10    | 31 6h   | A 27    | 12h 11  | 7h M    | 6h A 52  | 4h A 47    | 3 7 56      |
| 6  | 8 7          | 7 57     | 5 56    | 0 7     | 1 8     | 0 8     | 2 15     | 0 N 41     | 5 10 16     |
| 3  | 5 8          | 8 38     | 8 28    | 5 9     | 11 51   | 7 5     | 6 51     | 4 23       | 7 Morn.     |
| 11 | 8 5          | 7 50     | 5 58    | 0 6     | 1 9     | 0 12    | 1 38     | 2 12       | 9 2 1       |
| 3  | 5 8          | 8 45     | 6 12    | 5 49    | 11 31   | 7 3     | 6 47     | 6 9        | 11 4 36     |
| 16 | 8 7          | 7 46     | 6 0     | 0 6     | 1 11    | 0 15    | 0 51     | 2 55       | 13 Sets.    |
| 3  | 5 8          | 8 49     | 3 49    | 5 30    | 11 11   | 7 1     | 6 40     | Rises.     | 15 6 a 2    |
| 21 | 8 8          | 7 44 1/2 | 6 1     | 0 6     | 1 12    | 0 18    | 0 N 6    | 2 50       | 17 8 11     |
| 3  | 5 8          | 8 50 1/2 | 1 18    | 5 11    | 10 50   | 6 58    | 6 29     | 6 M 19     | 19 10 22    |
| 26 | 8 7          | 7 46     | 6 1     | 0 5     | 1 13    | 0 21    | 1 12     | 2 18       | 21 Morn.    |
| 3  | 5 8          | inc. 1 1 | 1 12    | 5 52    | 10 29   | 6 54    | 6 14     | 6 14       | 23 1 28     |
|    |              |          |         |         |         |         |          |            | 25 3 34     |
|    |              |          |         |         |         |         |          |            | 27 5 35     |
|    |              |          |         |         |         |         |          |            | 29 Rises.   |
|    |              |          |         |         |         |         |          |            | 31 6 a 36   |

☉ enters ♈ 2rd. 8h. 17m. 51f. E. 1°. Eq. + 1m. 9f. th. 21d  
 8h. 19m. o. f. Ap. T. ☉ mea. An. 5f. 21°. 43'. 22". 53'''.

Places of the PLANETS, as they will appear, beheld from the  
 SUN (call'd their *Heliocentric Places*,) for 1754, N. S.  
 being of Use for finding the *Planets Places*, and especially that of *Venus*. 69

January.

|    | ♂  | ♀  | ♂  | ♀  |
|----|----|----|----|----|
| 1  | 0  | 1  | 0  | 1  |
| 2  | 10 | 30 | 18 | 11 |
| 3  | 10 | 30 | 18 | 11 |
| 4  | 11 | 18 | 23 | 32 |
| 5  | 11 | 42 | 26 | 0  |
| 6  | 12 | 5  | 27 | 27 |
| 7  | 12 | 29 | 0  | 25 |
| 8  | 12 | 29 | 0  | 25 |
| 9  | 12 | 29 | 0  | 25 |
| 10 | 12 | 29 | 0  | 25 |
| 11 | 12 | 29 | 0  | 25 |
| 12 | 12 | 29 | 0  | 25 |

February.

|    |    |    |    |    |
|----|----|----|----|----|
| 1  | 19 | 12 | 58 | 3  |
| 2  | 28 | 13 | 22 | 6  |
| 3  | 37 | 13 | 55 | 8  |
| 4  | 46 | 14 | 9  | 10 |
| 5  | 55 | 14 | 33 | 13 |
| 6  | 4  | 14 | 50 | 15 |
| 7  | 13 | 15 | 34 | 18 |
| 8  | 22 | 16 | 9  | 16 |
| 9  | 31 | 16 | 31 | 24 |
| 10 | 40 | 17 | 40 | 31 |
| 11 | 49 | 18 | 49 | 38 |
| 12 | 58 | 19 | 58 | 45 |

March.

|    |     |    |     |    |
|----|-----|----|-----|----|
| 1  | 8   | 15 | 10  | 16 |
| 2  | 17  | 15 | 19  | 24 |
| 3  | 26  | 16 | 28  | 31 |
| 4  | 35  | 17 | 37  | 38 |
| 5  | 44  | 18 | 46  | 45 |
| 6  | 53  | 19 | 55  | 52 |
| 7  | 62  | 20 | 64  | 59 |
| 8  | 71  | 21 | 73  | 66 |
| 9  | 80  | 22 | 82  | 73 |
| 10 | 89  | 23 | 91  | 80 |
| 11 | 98  | 24 | 100 | 87 |
| 12 | 107 | 25 | 109 | 94 |

April.

|    |     |    |    |    |
|----|-----|----|----|----|
| 1  | 5   | 17 | 37 | 19 |
| 2  | 14  | 18 | 1  | 3  |
| 3  | 23  | 18 | 10 | 10 |
| 4  | 32  | 19 | 19 | 17 |
| 5  | 41  | 19 | 28 | 24 |
| 6  | 50  | 20 | 37 | 31 |
| 7  | 59  | 21 | 46 | 38 |
| 8  | 68  | 22 | 55 | 45 |
| 9  | 77  | 23 | 64 | 52 |
| 10 | 86  | 24 | 73 | 59 |
| 11 | 95  | 25 | 82 | 66 |
| 12 | 104 | 26 | 91 | 73 |

May.

|    |     |    |     |    |
|----|-----|----|-----|----|
| 1  | 59  | 19 | 58  | 14 |
| 2  | 68  | 20 | 67  | 21 |
| 3  | 77  | 21 | 76  | 28 |
| 4  | 86  | 22 | 85  | 35 |
| 5  | 95  | 23 | 94  | 42 |
| 6  | 104 | 24 | 103 | 49 |
| 7  | 113 | 25 | 112 | 56 |
| 8  | 122 | 26 | 121 | 63 |
| 9  | 131 | 27 | 130 | 70 |
| 10 | 140 | 28 | 139 | 77 |
| 11 | 149 | 29 | 148 | 84 |
| 12 | 158 | 30 | 157 | 91 |

June.

|    |     |    |     |     |
|----|-----|----|-----|-----|
| 1  | 55  | 22 | 24  | 28  |
| 2  | 64  | 23 | 33  | 35  |
| 3  | 73  | 24 | 42  | 42  |
| 4  | 82  | 25 | 51  | 49  |
| 5  | 91  | 26 | 60  | 56  |
| 6  | 100 | 27 | 69  | 63  |
| 7  | 109 | 28 | 78  | 70  |
| 8  | 118 | 29 | 87  | 77  |
| 9  | 127 | 30 | 96  | 84  |
| 10 | 136 | 1  | 105 | 91  |
| 11 | 145 | 2  | 114 | 98  |
| 12 | 154 | 3  | 123 | 105 |

July.

|    | ♂  | ♀  | ♂  | ♀  |
|----|----|----|----|----|
| 1  | 0  | 1  | 0  | 1  |
| 2  | 13 | 49 | 24 | 44 |
| 3  | 13 | 58 | 25 | 51 |
| 4  | 14 | 7  | 25 | 31 |
| 5  | 14 | 16 | 25 | 54 |
| 6  | 14 | 25 | 26 | 18 |
| 7  | 14 | 34 | 26 | 41 |
| 8  | 14 | 43 | 27 | 8  |
| 9  | 14 | 52 | 27 | 15 |
| 10 | 15 | 1  | 28 | 22 |
| 11 | 15 | 10 | 28 | 29 |
| 12 | 15 | 19 | 29 | 36 |

August.

|    |    |    |    |    |
|----|----|----|----|----|
| 1  | 14 | 45 | 27 | 8  |
| 2  | 14 | 54 | 27 | 15 |
| 3  | 15 | 3  | 27 | 22 |
| 4  | 15 | 12 | 28 | 29 |
| 5  | 15 | 21 | 28 | 36 |
| 6  | 15 | 30 | 29 | 43 |
| 7  | 15 | 39 | 30 | 50 |
| 8  | 15 | 48 | 31 | 57 |
| 9  | 16 | 1  | 1  | 64 |
| 10 | 16 | 10 | 2  | 71 |
| 11 | 16 | 19 | 3  | 78 |
| 12 | 16 | 28 | 4  | 85 |

September.

|    |    |    |    |     |
|----|----|----|----|-----|
| 1  | 15 | 41 | 29 | 33  |
| 2  | 15 | 50 | 29 | 40  |
| 3  | 15 | 59 | 30 | 47  |
| 4  | 16 | 8  | 1  | 54  |
| 5  | 16 | 17 | 2  | 61  |
| 6  | 16 | 26 | 3  | 68  |
| 7  | 16 | 35 | 4  | 75  |
| 8  | 16 | 44 | 5  | 82  |
| 9  | 16 | 53 | 6  | 89  |
| 10 | 17 | 1  | 7  | 96  |
| 11 | 17 | 10 | 8  | 103 |
| 12 | 17 | 19 | 9  | 110 |

October.

|    |    |    |    |     |
|----|----|----|----|-----|
| 1  | 16 | 35 | 1  | 53  |
| 2  | 16 | 44 | 2  | 60  |
| 3  | 16 | 53 | 3  | 67  |
| 4  | 17 | 2  | 4  | 74  |
| 5  | 17 | 11 | 5  | 81  |
| 6  | 17 | 20 | 6  | 88  |
| 7  | 17 | 29 | 7  | 95  |
| 8  | 17 | 38 | 8  | 102 |
| 9  | 17 | 47 | 9  | 109 |
| 10 | 18 | 1  | 10 | 116 |
| 11 | 18 | 10 | 11 | 123 |
| 12 | 18 | 19 | 12 | 130 |

November.

|    |    |    |    |    |
|----|----|----|----|----|
| 1  | 17 | 31 | 4  | 10 |
| 2  | 17 | 40 | 5  | 17 |
| 3  | 17 | 49 | 6  | 24 |
| 4  | 17 | 58 | 7  | 31 |
| 5  | 18 | 7  | 8  | 38 |
| 6  | 18 | 16 | 9  | 45 |
| 7  | 18 | 25 | 10 | 52 |
| 8  | 18 | 34 | 11 | 59 |
| 9  | 18 | 43 | 12 | 66 |
| 10 | 19 | 1  | 1  | 73 |
| 11 | 19 | 10 | 2  | 80 |
| 12 | 19 | 19 | 3  | 87 |

December.

|    |    |    |    |     |
|----|----|----|----|-----|
| 1  | 18 | 25 | 6  | 35  |
| 2  | 18 | 34 | 7  | 42  |
| 3  | 18 | 43 | 8  | 49  |
| 4  | 18 | 52 | 9  | 56  |
| 5  | 19 | 1  | 10 | 63  |
| 6  | 19 | 10 | 11 | 70  |
| 7  | 19 | 19 | 12 | 77  |
| 8  | 19 | 28 | 1  | 84  |
| 9  | 19 | 37 | 2  | 91  |
| 10 | 19 | 46 | 3  | 98  |
| 11 | 20 | 1  | 4  | 105 |
| 12 | 20 | 10 | 5  | 112 |

The *Times* of the particular *Positions* of the PLANETS with another, (called the *Mutual Aspects*) their *Apheions* and *Perihelions* the Moon's *Apogee* and *Perigee*, to Hours, for 1754.

| D. | January.  | D. | February. | D. | March.     | D. | April.    | D. | May.      | D. | June.   |
|----|-----------|----|-----------|----|------------|----|-----------|----|-----------|----|---------|
| 5  | ♂ ♀ 14h   | 1  | ♂ ☉ 21 8  | 1  | ☐ ♂ ♀ 2    | 4  | ☐ Per. 12 | 2  | ☐ Per. 2  | 3  | ♂ ♀ 14h |
| 9  | ♂ ☉ 12    | 3  | ♂ ♀ 13    | 1  | * ♂ 21     | 5  | ☐ ♀ 1     | 2  | ♂ ♀ 12    | 3  | ♂ ♀ 14h |
| 13 | ☐ Per. 20 | 4  | ♂ ♀ 19    | 3  | ♂ ☉ 2      | 6  | ☐ ☉ 9     | 4  | * ♂ 3     | 9  | ♂ ♀ 14h |
| 17 | ♂ ♀ 20    | 8  | ☐ Per. 9  | 4  | * ♀ 4      | 10 | * ♂ 4     | 7  | ♂ ☉ 10    | 11 | ♂ ♀ 14h |
| 23 | ♂ ♀ 16    | 11 | ♂ ♀ 15    | 5  | * ☉ 7      | 14 | ♂ ♀ 5     | 9  | ♂ ♀ 13    | 12 | ♂ ♀ 14h |
| 25 | ☐ Ap. 15  | 13 | ♂ ♀ 6     | 7  | ☐ Per. 23  | 16 | ♂ ☉ 10    | 15 | ☐ Ap. 20  | 13 | ♂ ♀ 14h |
| 30 | ♂ ♀ 5     | 18 | ♂ ♀ 12    | 8  | ☐ ♀ 18     | 17 | ☐ Ap. 9   | 18 | * ♀ 21    | 13 | ♂ ♀ 14h |
|    |           | 19 | ☐ Apb. 2  | 10 | * ♀ 20     | 20 | * ♂ ♀ 16  | 25 | ☐ ♀ 8     | 16 | ♂ ♀ 14h |
|    |           | 22 | ☐ Ap. 4   | 16 | ♂ ♀ 4      | 22 | * ♀ 12    | 28 | ♂ ♀ 6     | 17 | ♂ ♀ 14h |
|    |           | 26 | ☐ ☉ 9     | 19 | ♀ Perb. 13 | 29 | ☐ ☉ 2     | 29 | ☐ Per. 15 | 20 | ♂ ♀ 14h |
|    |           |    |           | 20 | ☐ ♀ 12     |    | ♂ ♀ 14    |    |           | 21 | ♂ ♀ 14h |
|    |           |    |           | 21 | ☐ Ap. 17   |    |           |    |           | 22 | ♂ ♀ 14h |
|    |           |    |           | 28 | ♂ ☉ 6      |    |           |    |           | 23 | ♂ ♀ 14h |
|    |           |    |           | 31 | ♂ ♀ 20     |    |           |    |           | 24 | ♂ ♀ 14h |
|    |           |    |           |    | ♂ ☉ ♀ 2    |    |           |    |           | 25 | ♂ ♀ 14h |

| D. | July.     | D. | August.  | D. | Septemb.   | D. | October.  | D. | November. | D. | December. |
|----|-----------|----|----------|----|------------|----|-----------|----|-----------|----|-----------|
| 5  | ♂ ☉ 19    | 1  | ♂ ♀ 23   | 2  | ♂ ☉ 23     | 1  | ♀ Apb. 19 | 4  | * ☉ 17    | 8  | ♂ ♀ 14h   |
| 9  | ☐ Ap. 23  | 6  | ☐ Ap. 12 | 3  | ☐ Ap. 1    | 3  | ☐ ☉ 20    | 5  | * ☉ 18    | 11 | ♂ ♀ 14h   |
| 15 | ♂ ♀ 4     | 7  | ♂ ♀ 13   | 11 | ♀ Perb. 11 | 4  | ☐ ♀ 3     | 8  | * ♀ 3     | 12 | ♂ ♀ 14h   |
| 18 | ♂ ♀ 0     | 20 | ☐ Per. 7 | 12 | ♂ ♀ 21     | 12 | ♂ ☉ 23    | 10 | * ♀ 4     | 13 | ♂ ♀ 14h   |
| 23 | ☐ Per. 17 | 21 | ♂ ☉ 14   | 14 | * ♀ 21     | 14 | ♂ ♀ 12    | 15 | ☐ Per. 23 | 14 | ♂ ♀ 14h   |
| 26 | ♂ ♀ 4     | 22 | ♂ ☉ 23   | 16 | ☐ Per. 20  | 14 | ☐ Per. 9  | 15 | ☐ ♀ 19    | 15 | ♂ ♀ 14h   |
| 29 | ♀ Apb. 12 | 23 | ♂ ♀ 21   | 17 | ♂ ♀ 8      | 17 | ☐ ♀ 6     | 19 | ♂ ♀ 22    | 16 | ♂ ♀ 14h   |
|    |           | 26 | ☐ ♀ 4    | 20 | * ♀ 16     | 23 | * ♀ 6     | 24 | ☐ Ap. 17  | 17 | ♂ ♀ 14h   |
|    |           |    |          | 21 | ☐ ♀ 9      | 30 | ☐ Ap. 1   | 11 | ♀ Apb. 11 | 18 | ♂ ♀ 14h   |
|    |           |    |          | 30 | ☐ Ap. 1    | 11 | ♀ Apb. 11 | 26 | ♂ ♀ 4     | 19 | ♂ ♀ 14h   |
|    |           |    |          |    |            | 26 | ♂ ♀ 4     | 28 | ☐ Ap. 4   | 20 | ♂ ♀ 14h   |
|    |           |    |          |    |            | 29 | ♂ ☉ 2     |    |           | 21 | ♂ ♀ 14h   |

The Place of the Moon's North Node ☉ for 1754

| D. | Jan.  | Feb.  | Mar.  | April | May   | June  | July  | Aug.  | Sept. | Oct. | Nov. |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 1  | 23 25 | 28 4  | 18 6  | 17 34 | 17 20 | 16 9  | 13 26 | 10 26 | 8 46  | 3 30 | 1 11 |
| 6  | 22 52 | 19 35 | 17 55 | 17 34 | 17 20 | 15 46 | 12 54 | 10 38 | 8 39  | 3 30 | 1 11 |
| 11 | 22 18 | 19 10 | 17 47 | 17 34 | 17 15 | 15 22 | 12 23 | 9 42  | 8 35  | 2 57 | 1 11 |
| 16 | 21 44 | 18 48 | 17 41 | 17 34 | 17 1  | 14 55 | 11 53 | 9 25  | 8 32  | 2 57 | 1 11 |
| 21 | 21 11 | 18 29 | 17 38 | 17 33 | 16 48 | 14 27 | 11 24 | 9 10  | 8 30  | 2 57 | 1 11 |
| 26 | 20 39 | 18 14 | 17 35 | 17 30 | 16 32 | 13 37 | 11 56 | 8 58  | 8 30  | 2 57 | 1 11 |



IPSES of JUPITER's first Satellite, 1754, N. S. apparent Time, according to Dr. Pound's Tables, for Greenwich Observatory.

| Eclipsions.<br>January. | Emerfions.  | Emerfions.  | Emerfions.  | Emerfions.  |
|-------------------------|-------------|-------------|-------------|-------------|
|                         | February.   | March.      | April.      | May.        |
| M. S.                   | D. H. M. S. | D. H. M. S. | D. H. M. S. | D. H. M. S. |
| 16 52                   | 2 6 56 50   | 2 14 36 31  | 1 16 52 58  | 1 19 8 20   |
| 44 26                   | 4 1 25 12   | 4 9 5 33    | 3 11 22 13  | 3 13 37 6   |
| 12 16                   | 5 19 53 38  | 6 3 24 38   | 5 5 51 27   | 5 8 6 12    |
| 39 46                   | 7 14 22 7   | 7 22 3 45   | 7 0 20 41   | 7 2 35 5    |
| 7 29                    | 9 8 50 40   | 9 16 32 53  | 8 18 49 54  | 8 21 3 56   |
| 35 43                   | 11 3 18 53  | 11 11 2 3   | 10 13 19 7  | 10 15 32 43 |
| 2 59                    | 12 21 47 50 | 13 5 31 13  | 12 7 48 18  | 12 10 1 28  |
| 30 48                   | 14 16 16 30 | 15 0 0 25   | 14 2 17 32  | 14 4 30 13  |
| 58 39                   | 16 10 45 14 | 16 18 29 38 | 15 20 46 44 | 15 22 58 56 |
| 26 35                   | 18 5 14 1   | 18 12 58 50 | 17 15 15 53 | 17 17 27 38 |
| 55 19                   | 19 23 42 51 | 20 7 28 5   | 19 9 45 3   | 19 11 56 19 |
| 22 40                   | 21 18 11 42 | 22 1 57 20  | 21 4 14 10  | 21 6 24 56  |
| 50 35                   | 23 12 40 36 | 23 20 26 35 | 22 22 43 4  | 23 0 53 32  |
| 18 42                   | 25 7 9 35   | 25 14 55 52 | 24 17 12 19 | 24 19 22 6  |
| 46 50                   | 27 1 38 28  | 27 9 25 8   | 26 11 41 16 | 26 13 50 39 |
| 15 0                    | 28 20 7 30  | 29 3 54 15  | 28 6 10 21  | 28 8 19 9   |
| 43 14                   |             | 30 22 23 42 | 30 0 39 21  | 30 2 47 37  |
| 11 21                   |             |             |             | 31 21 16 5  |
| 1st Feb.                |             |             |             |             |

| Eclipsions.<br>June. | Emerfions.  | Immerfions. | Immerfions. | Immerfions. |
|----------------------|-------------|-------------|-------------|-------------|
|                      | July.       | October.    | November.   | December.   |
| M. S.                | D. H. M. S. | D. H. M. S. | D. H. M. S. | D. H. M. S. |
| 4 32                 | 2 17 36 1   | 2 16 28 27  | 1 18 36 34  | 1 20 32 26  |
| 12 58                | 4 12 14 21  | 4 10 57 25  | 3 13 4 55   | 3 15 0 2    |
| 41 22                | 6 6 42 41   | 6 5 26 23   | 5 7 33 14   | 5 9 27 40   |
| 9 44                 | 8 1 11 2    | 7 23 55 17  | 7 2 1 30    | 7 3 55 14   |
| 38 7                 | 9 19 39 24  | 9 18 24 10  | 8 20 29 43  | 8 22 22 47  |
| 6 27                 | 11 14 7 48  | 11 12 53 3  | 10 14 59 40 | 10 16 50 17 |
| 34 47                | 13 8 36 11  | 13 7 21 53  | 12 9 26 2   | 12 11 17 45 |
| 3 7                  | 15 3 4 37   | 15 1 50 40  | 14 3 54 5   | 14 5 45 12  |
| 31 23                | 16 21 33 4  | 16 20 19 25 | 15 22 22 7  | 16 0 12 39  |
| 59 41                | 18 16 1 33  | 18 14 48 9  | 17 16 49 55 | 17 18 40 6  |
| 27 58                | 20 10 30 3  | 20 9 16 50  | 19 11 18 1  | 19 13 18 5  |
| 56 14                | 22 4 58 43  | 22 3 45 31  | 21 5 45 54  | 21 7 35 0   |
| 24 31                | 23 23 27 6  | 23 22 14 10 | 23 0 13 45  | 23 2 2 30   |
| 52 48                | 25 17 55 41 | 25 16 42 45 | 24 18 41 33 | 24 20 29 46 |
| 21 5                 | 27 12 24 17 | 27 11 11 16 | 26 13 9 20  | 26 14 57 21 |
| 49 24                | 29 6 52 53  | 29 5 39 35  | 27 7 37 5   | 28 9 24 50  |
| 17 42                | 31 1 21 32  | 31 0 8 11   | 30 2 4 44   | 30 3 52 18  |
|                      |             |             |             | 31 22 19 48 |

The Difference between the Apparent Time observed at any Place, of the Emerfions or Immerfions of this Satellite, and the apparent Time here fet down, converted into Degrees, will exactly shew the Longitude, East or West, of the Meridian of Greenwich Observatory, in 51 Deg. 28 Min. 30 Sec. North.

Rising, Southing, and Setting of several Eminent Fix'd Stars  
in Latitude of London, 51°. 32'. for 1754, N. S.

Times of Orion's Right Shoulder Southing, Setting, and Rising.

| D. | Jan.         | Feb.         | Mar.         | April.       | May.   | June. | July.  | Aug.         | Sept.         | Oct.          | Nov.          |
|----|--------------|--------------|--------------|--------------|--------|-------|--------|--------------|---------------|---------------|---------------|
|    | South<br>h m | South<br>h m | South<br>h m | Sets.<br>h m |        |       |        | Rise.<br>h m | Rises.<br>h m | Rises.<br>h m | Rises.<br>h m |
| 1  | 10a 52       | 8a 40        | 6a 51        | 11a 34       | Sets   |       |        | 2m 20        | 12a 20        | 10a 33        | 8a 40         |
| 6  | 10 30        | 8 20         | 6 33         | 11 16        | helio- |       |        | 2 11         | 12 20         | 10 15         | 8 40          |
| 11 | 10 8         | 8 0          | 6 15         | 10 58        | cally  |       |        | 2 42         | 11 44         | 9 56          | 7 40          |
| 16 | 9 47         | 7 41         | 5 56         | 10 39        |        |       | Rises  | 1 23         | 11 26         | 9 38          | 7 40          |
| 21 | 9 25         | 7 22         | 5 38         | 10 21        |        |       | helio- | 1 4          | 11 8          | 9 19          | 7 40          |
| 26 | 9 4          | 7 3          | 5 20         | 10 2         |        |       | cally. | 0 46         | 10 51         | 9 06          | 6 40          |

D. Times of Procyon's Rising, Southing, Setting, and Rising.

|    | Rises. | South  | South | Sets.  | Sets.   |  |  | Rises. | Rises. | Rises. | Rises. |
|----|--------|--------|-------|--------|---------|--|--|--------|--------|--------|--------|
|    | h m    | h m    | h m   | h m    | h m     |  |  | h m    | h m    | h m    | h m    |
| 1  | 6a 10  | 10a 24 | 8a 36 | 1m 14  | 11a 20  |  |  | Rises  | 2m 18  | 12a 27 | 10a 33 |
| 6  | 5 58   | 10 4   | 8 17  | 0 56   | 11 1    |  |  | helio- | 2 0    | 12 27  | 10a 33 |
| 11 | 5 26   | 9 44   | 7 58  | 0 38   | 10 41   |  |  | cally. | 1 42   | 11 58  | 9 56   |
| 16 | 5 5    | 9 25   | 7 40  | 0 20   | 10 22   |  |  | 3m 17  | 1 25   | 11 34  | 9 56   |
| 21 | 4 43   | 9 6    | 7 22  | 0 11   | 10 2    |  |  | 2 59   | 1 7    | 11 13  | 9 56   |
| 26 | 4 22   | 8 47   | 7 4   | 11a 39 | f. hel. |  |  | 2 40   | 0 49   | 10 57  | 8 40   |

D. Times of Regulus's Rising, Southing, Setting, and Rising.

|    | Rises. | South  | South | South | Sets. | Sets.  |        | Rises. | Rises. | Rises. | Rises. |
|----|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
|    | h m    | h m    | h m   | h m   | h m   | h m    |        | h m    | h m    | h m    | h m    |
| 1  | 7a 58  | 12a 53 | 11a 4 | 9a 12 | 2m 32 | 12a 25 | Sets   | 4m 6   | 2m 19  | 12a 27 | 10a 33 |
| 6  | 7 36   | 12 32  | 10 45 | 8 52  | 2 13  | 12 5   | helio- | 3 48   | 2 11   | 12 27  | 10a 33 |
| 11 | 7 14   | 12 12  | 10 27 | 8 34  | 1 53  | 11 44  | cally. | 3 30   | 1 42   | 11 58  | 9 56   |
| 16 | 6 52   | 11 53  | 10 9  | 8 16  | 1 34  | 11 23  |        | Rises  | 3 12   | 1 24   | 11 58  |
| 21 | 6 31   | 11 34  | 9 51  | 7 57  | 1 14  | 11 3   |        | helio- | 2 55   | 1 50   | 11 58  |
| 26 | 6 10   | 11 15  | 9 32  | 6 39  | 0 54  | 0 42   |        | cally. | 2 37   | 0 49   | 10 57  |

D. Times of Arcturus's Rising, Southing, Setting, and Rising.

|    | Rises. | Rises. | Rises. | South  | South  | Sets. | Sets.  |        |        |  |  |
|----|--------|--------|--------|--------|--------|-------|--------|--------|--------|--|--|
|    | h m    | h m    | h m    | h m    | h m    | h m   | h m    |        |        |  |  |
| 1  | 1m 17  | 11a 1  | 9a 12  | 12a 27 | 10a 36 | 1m 47 | 11a 39 | Sets.  |        |  |  |
| 6  | 0 55   | 10 40  | 8 53   | 12 9   | 10 17  | 1 27  | 11 29  | helio- |        |  |  |
| 11 | 1 33   | 10 21  | 8 35   | 11 51  | 9 57   | 1 6   | 10 58  | cally. |        |  |  |
| 16 | 0 11   | 10 1   | 8 17   | 11 32  | 9 38   | 0 45  | 10 38  |        | Rises  |  |  |
| 21 | 11a 46 | 9 42   | 9 59   | 11 14  | 0 18   | 0 24  | 10 18  |        | helio- |  |  |
| 26 | 11 25  | 9 21   | 7 41   | 10 55  | 0 58   | 0 4   | 9 58   |        | cally. |  |  |

D. Times of the Bright Star in the Vulture, Rising, Southing, and Setting.

|    | Rises. | Rises. | Rises. | Rises. | Rises. | South | South  | South  | South | Sets. | Sets. |
|----|--------|--------|--------|--------|--------|-------|--------|--------|-------|-------|-------|
|    | h m    | h m    | h m    | h m    | h m    | h m   | h m    | h m    | h m   | h m   | h m   |
| 1  | 6m 10  | 3m 58  | 2m 9   | 12a 12 | 10a 21 | 3m 31 | 1m 0   | 10a 51 | 8a 55 | 1m 53 | 1m 53 |
| 6  | 5 48   | 3 37   | 1 51   | 11 54  | 10 2   | 2 43  | 0 39   | 10 32  | 8 37  | 1 35  | 11 58 |
| 11 | 5 26   | 3 17   | 1 32   | 11 36  | 9 42   | 2 23  | 0 19   | 10 13  | 8 19  | 1 16  | 11 58 |
| 16 | 5 5    | 2 58   | 1 14   | 11 17  | 9 23   | 2 2   | 11a 53 | 9 54   | 8 1   | 0 56  | 10 57 |
| 21 | 4 43   | 2 39   | 0 56   | 10 59  | 9 4    | 1 41  | 11 35  | 9 36   | 9 43  | 0 39  | 10 57 |
| 26 | 4 22   | 2 20   | 0 38   | 10 40  | 8 45   | 1 20  | 11 15  | 9 17   | 7 26  | 0 20  | 10 57 |

D. Times of the South Balance Rising, Southing, Setting, and Rising.

|    | Rises. | Rises. | Rises. | South | South | South | Sets.  | Sets. |        |  |  |
|----|--------|--------|--------|-------|-------|-------|--------|-------|--------|--|--|
|    | h m    | h m    | h m    | h m   | h m   | h m   | h m    | h m   |        |  |  |
| 1  | 3m 10  | 12a 54 | 11a 5  | 1m 56 | 12a 1 | 9a 59 | 12a 37 | 10 31 | Sets.  |  |  |
| 6  | 2 48   | 12 34  | 10 46  | 1 38  | 11 42 | 9 39  | 12 15  | 10 12 | helio- |  |  |
| 11 | 2 26   | 12 14  | 10 28  | 1 19  | 11 23 | 9 18  | 11 54  | 9 53  | cally. |  |  |
| 16 | 2 4    | 11 54  | 10 10  | 1 1   | 11 3  | 8 57  | 11 34  | 9 34  |        |  |  |
| 21 | 1 43   | 11 35  | 9 52   | 0 42  | 10 43 | 8 36  | 11 14  | 9 16  |        |  |  |
| 26 | 1 22   | 11 16  | 9 34   | 0 24  | 10 23 | 8 16  | 10 55  | 8 57  |        |  |  |

F I N I S